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TRAVELS

IN THE

HIMALAYAN PROVINCES OF HINDUSTAN AND THE PANJAB;

IN

LADAKH AND KASHMIR;

IN PESHAWAR, KABUL, KUNDUZ,

AND

BOKHARA;

BY

MR. WILLIAM MOORCROFT AND MR. GEORGE TREBECK,

FROM 1819 TO 1825.

Prepared for the Press, from Original Journals and Correspondence,

BY HORACE HAYMAN WILSON, M.A., F.R.S.,

MEMBER OF THE ROYAL ASIATIC SOCIETY, AND OF THE ASIATIC SOCIETIES OF PARIS AND CALCUTTA; OF THE IMPERIAL SOCIETY OF NATURALISTS OF MOSCOW; OF THE ROYAL ACADEMIES OF BERLIN AND MUNICH, ETC. ETC.; AND PROFESSOR OF SANSCRIT IN THE UNIVERSITY OF OXFORD

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TO

SIR JAMES RIVETT CARNAC, BART.,

CHAIRMAN,

SIR JAMES LAW LUSHINGTON, K.C.B.,

DEPUTY CHAIRMAN,

AND

THE MEMBERS OF THE HONORABLE THE COURT OF DIRECTORS

OF

THE EAST INDIA COMPANY.

GENTLEMEN,

I TAKE the liberty of dedicating the following pages to you as the present representatives of a body to which I am under many and great obligations, and to which I am therefore glad of an opportunity to offer my public acknowledgments.

A like sense of obligation to the Court of Directors collectively, as well as to many of its individual members, was warmly cherished by the principal person engaged in the enterprise here described; and had Mr. Moorcroft survived to have been the narrator of his own travels, I doubt not that he would have availed himself of the same opportunity to have given utterance to similar feelings.

But I am further induced to inscribe these pages to your Honourable Court, by the persuasion, that at no period of its existence as a public body, did it comprise a larger proportion of members competent to take a sound and enlightened view of the true interests of British India and of the countries on its confines; and disposed to encourage every judicious effort of the Company's servants to acquire an accurate knowledge of the nations around them, to establish and maintain a friendly intercourse with whom will not only promote the commercial and political prosperity of Great Britain and her Indian

possessions, but may effect the still more important end of teaching to yet semi-barbarous tribes the advantages of industry and civilization.

I have the honour to be,

GENTLEMEN,

Your obliged and obedient Servant,

H. H. WILSON.

London,
14th September 1837

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PREFACE.

THE practical illustration of Geographical Science has at no period been prosecuted in this country with more unremitting diligence than in the present day. Travellers and tourists of all descriptions follow hard upon every change in the social condition or political relations of those countries with which we have long been familiar, whilst those of more adventurous spirit, or more ambitious pretensions, undertake to make known to us the character of man, and the features of nature, in the least frequented and least civilized parts of the earth.

Amidst all this bustle of curiosity and activity of science, it seems strange that Eastern Asia should be comparatively overlooked. Foremost in the march of civilization, and offering a wide and interesting field for investigation, there is no portion of this division of the globe which has been thoroughly explored, whilst there are very considerable tracts of it yet unvisited by any European traveller. Even the British possessions in the East, rich in

objects of attraction for every observer, whether of man or nature, and, except in regard to distance, readily accessible to research, yet want a traveller, or a series of travellers, having the leisure as well as the ability to portray with truth and accuracy their natural wealth or social singularities: whilst of the countries upon their confines, to the east and to the north, we know less than we do of the central deserts of Africa. The whole of the intervening country between India and China is a blank; and of that which separates India from Russia, the knowledge which we possess is but in a very slight degree the result of modern European research, and is for the most part either unauthentic or obsolete. The statements of Chinese geographers, or the details to be gleaned from Persian historians and biographers, are calculated only to be a substitute for accuracy, and are preferable alone to utter ignorance; and the travels of Carpini, Rubruquis, Marco Polo, and the Jesuit Missionaries, even if they were more comprehensive and trustworthy than they are, were performed under circumstances not less different from the present in central Asia than in Europe. Such authorities, therefore, are wholly inadequate to the demands of the present age, and, except in a few of the great unalterable landmarks of their several routes, leave, as it were, yet undescribed some of the most interesting countries of the East:

countries which have been sometimes considered as the cradle of civilization, and which we know were, at no very remote date, the prolific source of the fierce and innumerable hordes that, under Jangez and Timur, devastated Asia and filled Europe with alarm.

Some attempts, it is true, have been made of late years to supply the deficiency, especially on the part of Russia, which has an obvious interest in acquiring a correct acquaintance with the districts along her southern frontier, whether for the extension of science, of commerce, of influence, or of power. The whole amount of her efforts we cannot well appreciate, from the very little conversancy that exists in this country with Russian literature. According to a competent authority *, articles relating to northern and central Asia are of daily appearance in the periodical journals of Russia; and we have in the more important travels of Mouravief, Meyendorff, and Timkowski, sufficient proofs of activity and intelligence at work upon either extremity of a long and important line. The commendable advance thus made by Russia from the north should be met by a corresponding movement from the south, and the government of British India, without being actuated by either illiberal jealousy or unworthy apprehensions, ought,

* J. Klaproth.—*Magasin Asiatique.* Prospectus.

both for the diffusion of knowledge and the promotion of its own commercial and political interests, to co-operate with its powerful neighbour for the purpose of dissipating the mist which still envelops the geography of central Asia.

The object, although not very adequately or connectedly pursued, has from time to time received encouragement. The embassy of Mr. Elphinstone to Kabul, in 1808, although for a special purpose, and limited to a particular locality, was the means of introducing us to much new knowledge of countries beyond the Indian Caucasus; and more recently, the travels of Lieut. Burnes, undertaken with the sanction of the Indian government, have completed the line of information from Kabul to Bokhara, and connected it with that obtained by Fraser and Connolly in Khorasan. Lieut. Burnes has also collected particulars of interest beyond the immediate direction of his course, and has furnished us with some insight into the state of the regions between the Hindu Kosh and the Oxus to the frontier posts of Chinese Turkistan.

The most enterprising, and, in a great measure, the most successful efforts to penetrate into central Asia from Hindustan, have, however, been made by, or have originated with, Mr. William Moorcroft; and these were undertaken not only without the encouragement of the government of India,

but without their expressed approbation. A cold permission was Mr. Moorcroft's only incitement beyond the stimulus of a speculative mind and an enterprising disposition. His first attempt, which was made by way of Chinese Tartary, has been long the property of geographers, having been published in the twelfth volume of the Asiatic Researches*. In this journey he was the first European to cross the Himalaya, and make his way to the great plain between that and the Kuen-lun chain, the situation of the sources of the Indus and the Setlej, and of the two remarkable lakes of Rávan and Mánasa. Besides the natural difficulties of the way, he had to elude the vigilance of the Nepalese, then masters of the Himalaya, and who were on the eve of that war with the British which transferred the snowy mountains to the latter. Mr. Moorcroft had also to conciliate the Chinese authorities beyond the Himalaya, and in spite of all obstacles, and of sickness, induced by exposure and fatigue, he accomplished his purpose, ascertaining not only the valuable geographical facts alluded to (the situation of the sacred lakes of the Hindus, and the upper course of two important rivers), but the region, also, of the shawl-wool goat, and opening a way for the importation of the wool into Hindustan, and finally into Britain.

* A Journey to Lake Mánasarovara in Undes. *Asiatic Res.* vol. xii. Calcutta, 1816.

Mr. Moorcroft's ulterior object, however, was to penetrate to Turkistan, to the country of a breed of horses which it was his great ambition to domesticate in India. Although obliged to relinquish his purpose on the occasion of his first attempt, he very judiciously paved the way for a future enterprise, by sending, at his own expense, an intelligent native friend, Mir Izzet Ullah, to perform the journey. This gentleman left Delhi in 1812, and proceeded to Kashmir: from thence he went to Lé, in Ladakh, and, crossing that country, travelled to Yarkand, through which he was suffered by the Chinese to pass without question. From Yarkand he journeyed by way of Kashkar, Kokan, and Samarkand, to Bokhara, and returned to India from the last-named city by the route of Balkh, Khulm, Bamian, and Kabul. Of this journey, the most complete detour through the countries specified that is on record, Izzet Ullah kept a Persian journal, a copy of which falling into the hands of the Editor of the present work some years afterwards, was translated by him for one of the periodical journals of Calcutta *, whence it has been re-translated into French and German †. The observations of the Mir, though brief and unpretending, are intelligent, and in the dearth of more

* *Calcutta Quarterly Mag. and Review*, vols. iii. and iv. 1825.

† *Magasin Asiatique.* Juillet, 1826.—Ritter's Geography of Asia, ii.

ample and elaborate materials are of infinite value. The sketch which they afford it was the purpose of the travels now published to complete. That purpose, as will be seen, was but partially effected, and of what was accomplished the narration is imperfect. The unfortunate death of both the travellers, whilst it has delayed the publication of their labours, and thus defrauded them in some instances of that priority to which they have a rightful claim, has had the still more injurious effect of depriving their notes and journals of their own final revision, of that classification and arrangement which they were best qualified to devise, and of those additional developments and details which, like all travellers, they had been compelled to entrust to the tablets of their memory. The circumstances, however, under which the journey was undertaken, and under which an account of it is now offered to the public, will perhaps be best appreciated by connecting them with such imperfect notices as it has been found possible to collect of the travellers themselves.

Mr. William Moorcroft, who is to be regarded as the originator of the journey, and the principal of the enterprize, was a native of Lancashire, and was educated at Liverpool for the profession of a surgeon. Upon the completion of the usual course of study, however, his attention was diverted to a different pursuit, and he finally settled in London

as a practiser of veterinary surgery. His reasons for the change are thus detailed in a letter written from Kashmir to a friend in London.

"Whilst a pupil of Dr. Lyon, the colleague of Dr. Currie, at the Liverpool Infirmary, the attention of the physicians and surgeons of that institution was suddenly and strongly called to a formidable epidemic disease amongst the horned cattle of a particular district, and was thought to be extending. It was agreed to depute a pupil to examine the disease upon the spot. The choice fell upon me, and in company with a Mr. Wilson, the ablest farmer of the day, I performed my commission. As arising out of this occurrence, it is only necessary to remark, that two gentlemen, of whose judgment and patriotism I had the highest respect, took the trouble of endeavouring to show that if I were to devote myself to the improvement of a degraded profession, closely connected with the interests of agriculture, I might render myself much more useful to the country, than by continuing in one already cultivated by men of the most splendid talents. Convinced by their arguments, but opposed by other friends, and especially by my master, the matter was compromised by a reference to the celebrated John Hunter. After a long conversation with me, Mr. Hunter declared that if he were not advanced in years he himself would on the following day begin to study the profession in

question. This declaration was decisive, and I followed the course of study which Mr. Hunter was pleased to indicate."

As there was no veterinary school in London at the time, Mr. Moorcroft went over to the continent and resided for some period in France. On his return he settled in London, where, in conjunction with Mr. Field, he carried on for some years a very prosperous and lucrative business. The nature of the profession, however, involved many occurrences unpleasant to a man of cultivated taste and warm temper, and amidst intercourse with persons of station and respectability, collision with individuals not always possessed of either. Mr. Moorcroft, therefore, became disgusted with his occupation, although he speedily realised a handsome property by it. A great portion of this, however, he lost in some injudicious project for manufacturing cast-iron horse-shoes, and he readily, therefore, accepted an offer from the Court of Directors of the East India Company to go out to Bengal as superintendent of their military stud. He left England in May, 1808, in the same fleet, though in a different ship, with the writer of this notice, who, when he occasionally saw Mr. Moorcroft, during the voyage, as the vessels spoke, or on their touching at Madeira, little anticipated that he should ever become his biographer.

The Company's stud was instituted for the pur-

pose of improving the indifferent breed of horses indigenous in Hindustan, for the special service of their own cavalry. That the object had not been successfully prosecuted is to be inferred from the necessity of obtaining scientific superintendence from England. That it was attained in a very eminent degree within a reasonable period after Mr. Moorcroft's appointment, the observation of persons in India, however little conversant with the subject, could not fail to remark. In the letter above cited, Mr. Moorcroft observes, that at the time he left the stud on his present travels, there was not above one horse diseased for ten that he had found when he took charge of it. This amendment he attributes, amongst other things, to the use of oats as food, the cultivation of which grain he introduced into Hindustan. In order, however, to improve essentially and permanently the cavalry-horse of India, and especially in size and strength, Mr. Moorcroft strenuously urged the introduction of the Turkman, or English, in preference to the Arab horse. His representations were at one time so favourably considered by the authorities in India, that he was on the eve of being permitted to return to England to select a batch of suitable stallions; but the purpose was abandoned, and his thoughts were thenceforward fixed exclusively upon the neighbourhood of Balkh and Bokhara. This was the leading motive of his journey across

the Himalaya, and this purpose prompted the second journey, which terminated fatally for his project and himself.

Coupled with the conviction that the native cavalry horse of India could be ameliorated only by an infusion of the bone and blood of the Turkman steed, was an equally strong belief in Mr. Moorcroft's mind of the possibility of establishing a commercial intercourse with the Trans-Himalayan districts, which should be highly advantageous to Great Britain. In some respects the belief was founded on sufficient premises. To the anticipation of an extensive demand for British fabrics, both of hardware and of woollen cloth, from the known absence of all manufacturing skill in the countries of Central Asia, and the necessity of warm clothing imposed by the climate, was added acquaintance with the fact that these very articles, some of continental, and some of British manufacture found their way from Russia across the whole of the intervening regions, even to Afghanistan and the Panjab. To secure a part, if not the whole of this commerce, was an object which Mr. Moorcroft entertained with the ardour and tenacity of his character, for, as he observes of himself, "his obstinacy was almost equal to his enthusiasm," in which, however, for obstinacy his friends would substitute perseverance. Accordingly, having wrung from the government of India a reluctant

acquiescence in his journey to Bokhara, for the purpose of procuring horses, he also obtained its permission to carry with him such articles of merchandise as he thought likely to be most in demand, and, provided with this concession, he induced two of the mercantile firms of Calcutta (Messrs. Palmer and Co., and Messrs. Cruttenden and Co.) to entrust to his care a supply of goods to the value of about three thousand pounds. Some of these he sold or exchanged in Kashmir for shawls, and he subsequently added to his stock also about two thousand pounds' worth of coral and pearls. The ultimate proceeds of these articles were to be expended in the purchase of horses, which were, in the first instance, to be offered to the government for sale: such as they disapproved of were to be disposed of through other channels. The principle of the experiment was, no doubt, creditable to Mr. Moorcroft's patriotism, but many disasters, and much delay, eventually the cause, perhaps, of his death, may be ascribed to his incumbering himself with heavy packages, amidst impracticable routes, and amongst people who are little better than organised robbers, and who welcome the stranger merchant to their haunts merely that they may revel on his plunder.

Thus provided, Mr. Moorcroft set off on his journey some time at the end of 1819, accompanied as is described in the following account.

Of his only European companion, Mr. George Trebeck, I have not been able to learn many particulars, nor is it likely that much is to be told, as he was a young man, only on the threshold of the world. His father (Mr. Trebeck), who had been a solicitor in London, settled in the same capacity in Calcutta. He had some difficulties to contend with in his outset, but was gradually overcoming them, and acquiring a respectable business, when he died. One of his sons is still in Calcutta, following the profession of his father. The other, who had a turn for adventure, accompanied Mr. Moorcroft, and was a most invaluable companion. To him the geographical details were intrusted, and, as long as he was able to keep a regular field book, which he did until the party quitted the Panjab, the information he records is minute and accurate, and has been found of the greatest service in the preparation of the map which accompanies the present publication. In addition to his geographical notes he recorded various particulars, which show him to have been an intelligent and lively observer; and that he possessed talent for delineating the objects of art or nature which he encountered, the specimens which illustrate the following pages, and which are but a few out of many similar drawings, sufficiently evince. His share in the literary part of the following account, especially when he was on

detached duty, is specified in its proper place. Amongst his many merits, however, there were some, not the least, for which other testimony may be found. Moorcroft always speaks of his young friend as alert, active, cheerful, sanguine, happy under every privation, enduring hardships with fortitude, and meeting peril with resolution; and Lieutenant Burnes remarks, when describing his burial-place at Mazar, "this young man has left a most favourable impression of his good qualities throughout the country which we passed."

The circumstances of the journey are narrated in the following pages up to the arrival of the party at Bokhara, and it is only necessary in this place to advert to some of Mr. Moorcroft's sentiments on occurrences which, in his opinion, materially influenced his movements. The government of India, in permitting him to undertake the journey, refused to grant him any accredited authority or political designation. He engaged in the enterprise at his own risk and expense, and the question of reporting his proceedings through any official channel was left to his own discretion. As he was permitted, however, to receive his allowances as superintendent of the stud, Mr. Moorcroft himself considered that the government had a right to the information which he might collect. In the letter above cited he writes, "If I fall or fail, the Company will receive for my salary only

the compensation of such local knowledge as I may have acquired in countries wholly new to Europeans, and which will be found in my journals, deposited for transfer, in case of my death, with Captain Murray;" and, at a subsequent period, in reply to a request from Dr. Abel to possess and publish some of his papers, he writes from Kunduz: "My powers over the papers alluded to are more limited than they might appear-and, in explanation, it is to be remarked that the official letters of public servants of the government become, through the act of transmission, the exclusive property of the latter, and it is only with the permission of the supreme authorities that the writers can publish their contents." At the same time he communicated unreservedly, and at great length, with a number of individuals, and addressed several papers to different public bodies, as the Asiatic and Agricultural Societies of Calcutta, and the Board of Agriculture in England, forwarding the latter communications, however, through the government of Bengal and the Court of Directors, and, consequently, with their implied sanction.

Certain it is, however, that the government of India never recognised Mr. Moorcroft in any diplomatic capacity, and his supposed assumption of it occasionally incurred their displeasure. Shortly after the commencement of his route he applied to the Governor General for a letter of introduction

to the King of Bokhara, which it was not thought expedient to grant. A letter written on this occasion to a friend at Delhi is so characteristic of the writer, and explanatory of his feelings and his views, that its insertion here may not be thought irrelevant, observing, at the same time, that the tone of this epistle prevails throughout his correspondence during the entire period of his travels.

"*Mountains of Gurhwal, December 27th*, 1819.

"I HAD written to Lord Hastings under cover to you before your dispatch reached me.

"Relying upon your judgment, I conclude that you will have thought it improper to press further a subject on which the government have already decided.

"I am sorely disappointed, and would willingly say, as far as regards alone the public result of the enterprise touching Bockhara, but engaged as is my own reputation in the issue, I cannot but personally and poignantly feel the diminished probability of success arising from the want of the document prayed for.

"It appears that in due time I did not sufficiently appreciate the punctilious character of the King of Bokhara, nor the value of a complimentary letter from the Governor-General.

"So far, then, I have been in error, and may, perhaps, have dearly to pay for the oversight.

"It would be presumptuous to canvass the motives of the refusal, but will not, I trust, be considered disrespectful in me to observe, that whatever impression such event might have made on my mind previously to my journey, it now calls into all possible activity every energy I can employ to deserve success. The merits of the object of this expedition will stand

unimpaired even by an unsuccessful result; but a successful result will give me a stronger claim to soundness of view, the more insulated shall have been my industry and perseverance.

"To you I beg to reiterate my grateful thanks for that friendly interest, which, to ensure my personal safety, would, even in this stage, approve the abandonment of the present enterprise.

"You may over-estimate, I may undervalue the personal dangers attending it, and thus we may not come to a similar conclusion; yet I see my course overhung with risks both numerous and formidable.

'It may be urged that the extension of British commerce was not within the scope of my mission, and that as much time as such extension may occupy is so much abstracted from its direct and special object.

"I will freely admit the first part of the position, but not the last, as the countries in which it is proposed to procure horses are not accessible to an European, except as a needy adventurer or as a merchant.

"The former character is absolutely useless in relation to the present object, whilst the latter may subserve the general interests of commerce, and the only mode by which horses are profitably procurable.

"Hence it follows, I presume, that the time employed in prosecuting that form of intercourse through which alone horses are profitably obtainable, is legitimately employed in promoting the special objects of my mission.

"And I hesitate not to acknowledge my satisfaction in finding these two objects so blended, and in being he instrument of attaining them.

"I shall not go further into stud affairs, than to state generally that our *matériel* has, in relation to its end, always been defective; and this deficiency has increased the expense and delayed the expected return of stud operations.

"The Honourable Court of Directors send a few horses of high value, annually, as stallions; the stud furnishes some, and others are purchased.

"Few persons will deny that these altogether are unequal to our wants, and this deficiency gives rise to expedients of supply, expensive and embarrassing to the two objects of improvement and extension.

"The Board, anxious to meet this deficiency, purchase as far as the Calcutta market will furnish such as they think suitable.

"But there is a great difference of opinion as to the kind of horses suitable for the purpose, and hence it sometimes happens that horses thus purchased are not approved when they arrive at the stud.

"For instance, since my leaving the Presidency, an English horse has been purchased and sent up to the stud, at the price of two thousand rupees, which I refused as unfit for our use, when tendered by the owner within a few miles of the stud.

"You must be aware that this state of things is awkward and embarrassing. If I expressed not my disapprobation of horses I considered unsuitable, I should obviously neglect my duty, and when I represent such unsuitableness after purchase, the opinion cannot fail to give umbrage to the party so purchasing.

"Whilst I remain at the stud, my opportunities of purchasing suitable horses is of course very limited.

"What is to be done?

"Is this uncomfortable condition to be continued, or is an effort to be made to place matters on a footing more cordial, co-operative, and efficient?

"The Government have agreed to allow me an opportunity of trying what I can do towards realizing the latter alternative, and my judgment in selection is amenable to public opinion.

"I know full well that the period in which I might have

made this attempt with greater probability of success, with less prospect of danger, has passed by; but I have not to reproach myself through inertness with having neglected the opportunity.

"If I succeed in reaching Ladakh it may be optional to push through the southern end of Chitral, to attempt crossing the Beloot Tagh range, and to reach Khoolm by the valley of Badakshan.

"But the Tibetian side of the pass across this chain may have been obstructed through fear of opening Tibet to the inroads of the Oosbeks. And if a passage were to be effected, I shall have to conciliate the good-will of several petty chiefs before I can reach the state of Meer Quleech Ulee Khan. If I abandon this pass and proceed to Pilpee Sooagh, at the northern extremity of Chitral, I shall find two roads, one leading to Badakshan, the other to Yarkand.

"Of the safety of these roads no sound calculation can be made here, although some of the inconveniences by that of Yarkand are known.

"But at Ladakh information can be had on this point from Yarkand and Kashmir merchants, and perhaps there may be an answer from Meer Quleech Ulee Khan to my letter of inquiry.

"Supposing the Badakshan road to Khoolm, and the Yarkand road to Bokhara, both shut, and these facts ascertained, at Ladakh I shall have to cross Kashmir to Peshawar, and to proceed by Bameean to Khoolm.

"The Khyber pass may be turned by going on the Karuppa road, which Hafiz Mohammed Fazil did, and the natives on this line of route are, comparatively with the Khyberees, quiet and reasonable.

"I shall not trouble you with speculations on political events in Kabul, but shall presume on the practicability of finding this road open in almost all contingencies, though I must pay for safe conduct, and perhaps largely, as the liberality of Mr.

Elphinstone has given the natives high notions of the wealth and munificence of Europeans.

"Disadvantageous as this may be, yet constituting only a question of private expense, I shall willingly meet it according to my limited means. I may be obliged to abandon the attempt by bodily disability, or by insuperable obstacles; but to desert the enterprise through any other cause, would be most culpably to sacrifice the interests of those individuals who, relying upon my judgment, have placed their property at my disposal, more in the hope of promoting the public, than of benefiting their private interest.

"I am bound to add, what I gratefully feel, that Messrs. Palmer and Mackillop were induced also, by private friendship, to risk this property, from it appearing to them the only mode by which could be accomplished that design on which I had been so long and so anxiously intent. And it is equally incumbent on me to observe, as it is creditable to these gentlemen, that when I urged them to accept a proportion of my salary as an insurance of their property against loss by my death or failure, they steadily rejected the pledge.

"If I had no other motives, this liberal conduct alone would compel me to spare no personal exertion or expenditure of my private funds to bring the enterprise to a successful issue.

"But to this must be added a decided conviction, that I shall hereby serve the object of my original mission more directly than in any other mode of employment, and a confident belief that I shall be able to open to British industry countries to which most of its manufactures are hitherto wholly unknown.

"And the distress of the Manchester and Liverpool manufacturers and merchants, brought on partly through stagnation of trade, and partly through investments to India disproportionately in excess to its consumption, would stimulate any man of common feeling to endeavour to relieve it by displaying a new channel, if such should seem within his reach.

"I have, however, heard it stated by men of great general knowledge in Calcutta, that little extension of commerce in the direction I have taken is reasonably to be expected, because the intercourse of the Cis and Trans-Himalayans, though of long standing, has never been so active as to countenance a supposition that there exists much reciprocal demand for the articles of their respective countries. And it is argued that if European merchandise were desirable to the Trans-Himalayans, it would, ere this, in some manner have made its way amongst them. I shall wait upon this opinion with the issue of the present expedition; but it may be not irrelevant, *en attendant*, to observe, that the scanty commerce hitherto carried on from British Hindustan across the Himaleh to Hither Tatary, from Lhassa up to Yarkand, is almost wholly in the hands of Kashmir, and of border traders, whose views, suited to their capitals, proceed in a regular routine, undisturbed by foreign competition, or by the influx of new articles of merchandise.

"These traders have effected a monopoly, and draw their profits from high prices upon a very limited import of foreign manufactures, and from comparatively low prices upon grain and raw materials.

"Favoured by local and political peculiarities, they have hitherto succeeded in keeping up a closed barrier against the extension of commerce except by their own channel.

"And it would seem that they would, even now, be satisfied with their usual trade, rather than let in a foreign trader, though he should tender to them increased profits. At least, I am most strongly impressed with this opinion by collating circumstances, which occurred in my former and present journeys, and the influence of which has had a share in my temporary disappointment. Under this impression I consider the measure most essentially conducive towards speedily establishing a free intercourse betwixt Hindustan and Hither Tatary, to consist in a British agent presenting himself at a trading town in the latter country, with an assortment of British merchandise, and attempting to effect so good an understanding

with the ruling authorities, as to render it available as an entrepôt. With these views, I shall *by some route* reach Lé, the capital of Ladakh, and if I succeed in these objects, all other difficulties will gradually be overcome.

" My allowances will certainly be absorbed by my journey, but this loss, accompanied as it will be by privations, fatigues, and dangers, will, in my estimation, be as nothing, if I can accomplish my views.

" If I fall, my country will set a due value on my motives, and at least allow me a claim to disinterested perseverance.

" But to turn back would be voluntarily to invite the indications of scorn, and to load me with feelings which would hurry me to the grave.

" If I fail, I shall lose my time, my property, perchance my reputation, and probably my situation, for an individual in this country has thought proper to address the late Chairman of the Court of Directors, Mr. Reid, in regard to me; and within a few days a letter has reached me from England, from the tenor of which, it may be fairly inferred, that if my journey prove not successful, I may almost to a certainty look to be superseded. So that my private concerns are in a hopeful train, and in case of failure, my devotedness to the interests of my employers, and to the objects of my mission, is likely to be rewarded by loss and disgrace, because my views concerning a subject on *which I ought to be well informed*, differ from those of the persons who have a powerful influence on stud affairs.

" To return *re infectâ*, would even now be fatal to my fortunes, and I must push the adventure to its end.

" Not even the expression of the individual in question, that he does not expect any good from this journey, nor the impression he has given with the worst consequences thence resulting, can shake a resolve founded on principles of duty to my employers, and of justice to myself.

" Once more I fervently thank you for your friendly and honest solicitude for my safety and welfare.

" Pardon me for intruding upon you with an epistle of such

unconscionable length, which had not happened if I had not thought it necessary more particularly to explain the impracticability of my receding from my present engagements."

After traversing the mountains in the manner described in the following account, Mr. Moorcroft and his party arrived safely at Lé by a route on which no European had preceded them, and on his way he first determined the upper parts of the direction and the sources of two of the three great rivers of the Panjab,—the Beyah, Vipása, or Hyphasis, —and the Chandrabhága, or Chinab,—the Acesines, or Abi-sin. A very small portion of this tract, or the southern parts of the hill states of Kahalur, Sukhet, and Kotoch, were crossed by Forster, but in a condition of personal restraint and danger, which left him little leisure for observation. About two centuries earlier (1624) the Jesuit missionary, Andrada, appears to have made his way from Srinagar to the north of the Himalaya into either Ladakh or Rodokh, and in the beginning of the last century (1715) the missionary, Desideri, entered Kashmir by the Pir Panjal pass, and thence proceeded to Lh'assa through Ladakh. Very little useful information, however, was obtained from these journeys, as the accounts published of them are brief, and are chiefly occupied with the personal sufferings of the travellers from the ruggedness of the routes, the inclemency of the weather, and the inhospitality of the people. The journey

of Mr. Moorcroft from Joshimath to Srinagar, and thence to Lahore, and his march by way of Kotoch, Kulu, and Lahoul to Lé, as well as the details relating to the principality of Ladakh, are entirely new in the annals of geographical research,—nor has he had any successors. Some excursions into Sukhet and Kulu have been made from the British stations in the Himalaya, and the late Mr. Gerard penetrated by much the same route into Ladakh. His course was there arrested by the local authorities, and he was compelled to return to the British frontier of Bisahar. The notices of his travels which have found their way into various publications are desultory and unconnected, and by no means supersede the labours of his predecessor. They are, however, satisfactory, as they confirm some of the most remarkable particulars in Moorcroft and Trebeck's descriptions of the hill states and Ladakh.

Mr. Moorcroft and his party reached Lé in September, 1820, and remained there for a period of two years, or until September, 1822. Part of this delay was attributable to the negotiations at Yarkand, which at last ended in the refusal of the Chinese authorities to permit his passage through that city, but it was perhaps more protracted than was avoidable, and so it appeared to the Bengal government, which ordered the suspension of his salary during the further prolongation of his absence. It was not

in Mr. Moorcroft's nature to attach much value to pecuniary considerations, and the order exercised no influence on his movements. He writes to his friend, Mr. Palmer, on this subject: "Is it intended to punish me for the delay in my mission? I have too high an opinion of the government to suppose they can have been so influenced, and the check, however originating, shall not weigh upon my measures, although, on account of my children, I could wish to avoid encroaching on my past savings: yet even this shall not be exempt, if it be necessary to the completion of my objects. The accumulation of property can never afford such gratification to my mind as the reflection of having been, in some degree, accessary to the benefit of my country, and of this retrospect no human power can deprive me." He was much more sensible of the disapprobation expressed by the government of his interposition in political matters, his becoming the medium of the tender of the allegiance of Ladakh to British authority, and his writing to Ranjit Sinh to expostulate with that chief on his unjustifiable demand of tribute from Lé. He accordingly wrote repeatedly and earnestly to the government, disclaiming all assumption of a diplomatic character, and justifying his conduct upon principles of humanity, complaining, also, not only of the undeserved severity of the reprimand, but of the difficulties and dangers which the notoriety

of his disgrace would entail upon his enterprise, its disheartening effects upon his followers, and the probability that it might lead indirectly to his personal destruction. His apprehensions were, perhaps, exaggerated; nor does Ranjit Sinh appear to have been offended by Mr. Moorcroft's interference. No doubt the wily Sikh was well pleased to find that no interposition more weighty than the remonstrances of an unofficial individual stood between him and his destined prey, but he continued, at least, the semblance of countenance to Moorcroft's projects, and at this very time supplied him with matchlocks and bayonets wherewith to arm his followers. The fear of giving offence to Ranjit Sinh no doubt induced the government to reprove Mr. Moorcroft, and to decline the proffered allegiance of Ladakh; but it is much to be regretted that any such needless apprehension should have persuaded them to relinquish so justifiable an opportunity of extending British influence. The grounds on which the allegiance was tendered are explained in the following pages, and, whatever may be thought of the plea which they afforded, it is evident that Ranjit Sinh had not the shadow of a right to claim Ladakh as his own. It was an independent principality, at liberty to seek protection where it chose, and the buckler of the British power might have been warrantably thrown over it, without injury to its own independence, or to the

rights of its neighbours. Although the allegiance might have been declined, yet a friendly intercourse might have been established at a very easy rate, and access thus secured to a territory conterminous with our own districts, and conveniently situated between Kashmir and Tibet, as well as forming an advanced post towards the frontiers of Chinese Tartary. Without participating in all Mr. Moorcroft's sanguine views of commercial advantages, there can be no question that a friendly footing in Ladakh would be highly favourable for establishing a beneficial trade with Tartary and Turkistan. Ladakh is now little better than a Sikh province, and, although the rule to which it is subjected is not likely to be permanent, yet a sort of right has been set up by actual occupation, with which at the period of Moorcroft's residence at Lé the question would not have been embarrassed.

Part of the detention at Ladakh was, however, owing to pecuniary difficulties. Unable to dispose of his merchandise at a fair price, the expense of maintaining his party, consisting of forty persons, for so long a period, exhausted Mr. Moorcroft's finances, and he was obliged to negotiate bills upon his agents in Calcutta, through the Resident at Delhi, Sir David Ochterlony. That officer probably did not consider himself authorised to advance money on the bills, at least without reference to Calcutta; some, therefore, he hesitated, some he refused to

pay, and considerable delay ensued, which, whilst it subjected Mr. Moorcroft to much anxiety, prevented his departure from Ladakh. This conduct of the chief authority at Delhi he deeply resented, and addressed him a letter, of which some extracts may serve to mark the warmth of his feelings, both of resentment and gratitude:—

"In what way I have merited such pointed contempt and abandonment I am yet to learn; but if I had become obnoxious to you, what had my party done to be involved in the punishment with which I was visited? Or, if you did not feel for them, why did you not bestow a thought on the reputation of the Honourable Company, compromised by not giving sustenance to their servants in a new and foreign country? Thanks be to Heaven it has not been compromised!

"When my days were racked with anxiety,—my nights passed in sleeplessness,—when I saw only a refuge from loss of character in the miserable expedient of selling merchandise at one-third of its value, from a general combination of Kashmiri interest against me,—Providence raised up a friend in a native of Khojand, a trader of Yarkand, whose feelings of respect for British merchants, impressed by accounts related to him in Russia, induced him to advance money to relieve my embarrassment.

"This individual, Mullah Partab Bai, a name

that should be dear to every true-born Briton, did not, with cautious prudence, send my bill to you previously, to ascertain its value (the fate experienced by my draft on Messrs. Palmer), but, with a liberality worthy of even a British merchant, advanced, on the instant, the money I required.

"Thus my embarrassments were relieved at that moment. A second merchant took my bill on you for another sum, and the sacrifice of some of my own property enabled me to furnish subsistence for my party until the money came from you, which did not arrive till November, 1821.

"With little money, and with injured, if not ruined credit, it would have been impracticable for me to have proceeded, and the expedition would have been at an end.

"To observe, in reply, that the twenty thousand rupees *were* forwarded to me is no alleviation of the act, or of the consequences of the dishonour of my bill, for the conclusion of my letter directed and necessitated the transmission of the bill, and the money never was transmitted by you through Murali Dhar, the banker.

"And the slightest reflection on the long time which had elapsed between the date of the draft, and the period when I announced that, up to that moment, no money had arrived, must have shown to you that the unbroken sum of twenty thousand

rupees would not have been too much for the exigencies of my journey.

"Again the generous Toork interposed. His friendship would not allow me to drain my nearly exhausted treasury of almost its last rupee, but replaced the ingots of silver I had borrowed, along with the interest and expenses, and gave me cash amounting, in the whole, to above seven thousand rupees, for which he ventured to accept my bill, in the fullest confidence on my honesty and honour.

"Under what feelings, but such as are painfully humiliating to me as a Briton, can I contemplate the contrast between the conduct of my countryman, the Resident at Delhi, and that of a stranger, a Tooranee merchant, who never before had seen an Englishman?

"But his generosity stopped not at the mere point of accommodation; he hoped, by this proof of his own reliance on my integrity, to arrest the clamour of calumny raised against my character, and the effort has been completely successful. Thus, in this country the name and credit of a Briton have not yet been stained."

There is much more of the same tenor in this letter, which is dated from Lé in April, 1822. The high character of Sir D. Ochterlony must acquit him of all intention to throw difficulties in Moorcroft's way, but he, perhaps, did not sufficiently consider

the predicament in which the travellers were placed, nor attach much importance to the failure of the enterprise. Moorcroft himself observes, on more than one occasion, that he was accused of pursuing shadows; and the prevailing opinion in India was, that he had embarked in an undertaking from which little, except the gratification of his own taste for a wandering life, was to be expected to result. The opinion was, in a great degree, unjust, and was probably provoked by Moorcroft's exaggerated representations of the benefits to be derived from his journey, not to the geography of the new regions which he was to traverse, but to the commerce of India, and even of Great Britain.

After quitting Lé our travellers proceeded to the capital of Kashmir, by the route which was, most probably, that of Desideri, and which was followed by Mir Izzet Ullah from Kashmir to Lé. The party resided at the city of Kashmir about ten months, and collected much additional information regarding the geography and statistics of the province, and particularly respecting the manufacture of shawls. It was not quite untrodden ground. Forster visited Kashmir in 1783, and Berniers' account of the country is well known. There are also many particulars recorded in the Ayin Akberi of Abulfazl, translated by Mr. Gladwin. Lalla Rookh has also contributed to make Kashmir known, somewhat too favourably,

to English readers. There was, however, an abundant harvest left for observers, and a very fair crop was gleaned by Messrs. Moorcroft and Trebeck. Since their visit Kashmir has seen several Europeans. The letters of M. Jacquemont contain but few particulars; but his journals, publishing by the French government, will, no doubt, enter more into detail, especially with regard to the natural history of the country. Baron Hügel and M. Vigne have also travelled recently in Kashmir. The former has communicated some of his observations to the Royal Geographical Society, and is about to publish an account of his travels. M. Vigne has not, as far as I am aware, yet returned to Europe.

Mr. Moorcroft quitted Kashmir finally by the Pir Panjal mountains, and descended by a route new to European travellers to the Panjab. Following the direction to Peshawar and Kabul, he came upon the line pursued by Mr. Elphinstone and the embassy to Kabul. At Kabul he was entangled in the political contests which divided the ruling family to an extent that exceeded prudence, but which was, in some degree, unavoidable, as he had travelled under the especial protection of one of the parties. From the moment of his crossing the Indus his merchandise and other valuables, which had previously caused him some embarrassment, became a serious in-

cumbrance. Exaggerated reports of its nature and value were scarcely necessary to excite the cupidity of the needy and unprincipled adventurers amongst whom he was now committed, and he was not suffered to part from them without having been obliged to pay for his protection. He was fleeced, however, without rudeness, and under the affectation of friendship, and the money extracted from him was acknowledged as a loan, although, in all probability, it has never been repaid. The full and authentic work of Mr. Elphinstone, and at a later date the visit of Lieutenant Burnes to Peshawar and Kabul, leave to this part of Mr. Moorcroft's journey comparatively little that is now novel.

The route from Kabul to Bokhara was, at the time when it was travelled by Mr. Moorcroft, new to European investigation. Goez, who travelled from Kabul to Kashgar, and thence to China, in 1603, passed over a portion of it, but it is difficult to identify all the places which he names, and his account is concise and imperfect. Mir Izzet Ullah, on his way back to India, came by the same road, and since Moorcroft's death it has been traversed and fully described by Lieutenant Burnes. Bokhara itself has also been ably illustrated by the same traveller, as well as by Baron Meyendorff. The chief interest of this portion of Moorcroft's travels now, therefore, arises from his personal adventures, his detention and plunder by

the unprincipled chief of Kunduz, and his death and that of his companions on their return. The misfortunes which he encountered, and the final failure of the enterprise may, no doubt, be justly ascribed to the delay in the commencement of his journey; for had he visited Turkistan a year sooner he would have found the chief of Khulm, Mir Khalich Ali Khan, by whom he had been invited into the country, alive, and he would, no doubt, have given him the friendly reception which he promised, as Khalich Ali was one of the few Uzbek chiefs capable of rational views of his own interest and of that of his country, and disposed to protect and encourage the resort of merchants to his principality. His death, and the dissensions which ensued amongst his sons, transferred the ascendancy to Murad Beg, a Tartar of activity and ambition, but a barbarian and a robber.

Mr. Moorcroft remained at Bokhara nearly five months, but the notes which he has left of his residence are so very desultory and imperfect, and so much superseded by subsequent publications, that I have thought it advisable to close the account of the journey with his arrival at that city. He was received by the King with as much kindness as could be expected from Mir Hyder, a selfish, sensual, and narrow-minded bigot, and, after various difficulties, arising from the meanness and cupidity, chiefly, of the monarch himself, disposed of part

of his goods, and effected the purchase of a number of valuable horses, with which he purposed to return to Hindustan. After crossing the Oxus on his way back, about the 4th or 5th of August, 1825, Mr. Moorcroft determined to deviate from the road, in order to go to Maimana, where he understood it was likely that he should be able to make important additions to his stock of horses. "Before I quit Turkistan," he writes from Bokhara, "I mean to penetrate into that tract which contains, probably, the best horses in Asia, but with which all intercourse has been suspended during the last five years. The experiment is full of hazard, but *le jeu vaut bien la chandelle*." His life fell a sacrifice to his zeal. At Andhko, where he spent some days in effecting purchases, he was taken ill with fever, and died.

Of the particular circumstances of his death there is no satisfactory account, as he had quitted his party and was attended by a few servants only, and a son of Wazir Ahmed, a pirzada, or Mohammedan of a religious character, who had replaced Mir Izzet Ullah as his native secretary and interpreter. It was reported that he had been poisoned; but there is no reason to believe that this was the case, although he had fallen amongst robbers, who seized upon his property, and put his followers into confinement. Such was the luckless fate of an individual who, whatever may be thought of his

prudence or judgment, must ever stand high amongst travellers for his irrepressible ardour, his cheerful endurance, his inflexible perseverance in the prosecution of his objects, and his disinterested zeal for the credit and prosperity of his country.

The liberation of Mr. Moorcroft's servants having been with some difficulty obtained by the efforts of the son of the pirzada, they conveyed their master's body to Balkh, where it was buried. Here another loss was sustained in Mr. Guthrie, a native of India, who had been attached to the expedition as a medical assistant, and who seems to have sustained his share of peril and fatigue with the same spirit that animated his superiors. Mr. Trebeck, now left alone, moved on to Mazar, but was there, after some interval, seized with fever, and, after a short illness, followed his companions to the grave.

Deprived of a leader, the other members of the party dispersed, and the property being left without a responsible owner, was seized upon by Ata Khan, the mutawali or manager of the holy shrine at Mazar. The son of Wazir Ahmed managed, however, to secure a few horses, some of the property, and most of the papers of Mr. Moorcroft, and with these effected his return to Kabul, where his arrival was announced to Mr. Charles Trebeck by Gurudas Sinh, a banker of Kabul, from whose report the circumstances attending the

death of the travellers, as here particularised, are derived. The accounts collected by Lieut. Burnes on the spot are somewhat different.*

The difference is not very material; the parties evidently fell a sacrifice to the insalubrity of the

* "The caravan assembled outside the city, near to another melancholy spot, the grave of poor Moorcroft, which we were conducted to see. Mr. Guthrie lies by his side. It was a bright moonlight night, but we had some difficulty in finding the spot. At last, under a mud-wall which had been purposely thrown over, our eyes were directed to it. The bigoted people of Balkh refused permission to the travellers' being interred in their burial-ground, and only sanctioned it near the city, upon condition of its being concealed, lest any Mohammedan might mistake it for a tomb of one of the true believers, and offer up a blessing as he passed by it. The corpse of Moorcroft was brought from Andhkoh, where he perished at a distance from his party. He was attended by a few followers, all of whom were plundered by the people. If he died a natural death, I do not think he sunk without exciting suspicion; he was unaccompanied by any of his European associates, or confidential servants, and brought back lifeless on a camel, after a short absence of eight days. Mr. Trebeck's health did not admit of his examining the body."—*Burnes' Travels*, i. 243.

"Mazar is the place where Mr. Trebeck, the last of Moorcroft's unfortunate party, expired. One of our companions, a Hajee, attended him on his death-bed, and conducted us to the spot where he is laid, which is in a small burying-ground westward of the town, under a mulberry-tree. After burying his two European fellow-travellers, he sunk at an early age, after four months' suffering, in a far distant country, without a friend, without assistance, and without consolation. The whole of his property was either embezzled by a priest who accompanied the party, or confiscated by the *holy men* of the sanctuary, who yet retain it."—*Ibid.*, 234.

climate, exercising a particularly noxious influence on constitutions which had been exposed to extreme vicissitudes of temperature, and to extraordinary privation, anxiety, and fatigue. The fatality was not even limited to the three Christian principals, for Mir Izzet Ullah, who had quitted the party at Kundus, died in the course of the following year at Kabul. They had all very probably imbibed the germ of death at Kunduz, the unhealthiness of which place is notorious, and thus fell ultimately victims to the rapacity of Murad

It now only remains to give some account of the circumstances under which, after so considerable an interval, the publication of the travels of Messrs. Moorcroft and Trebeck has taken place. As intimated in Mr. Moorcroft's letters already quoted, and in many other parts of his correspondence, to which it is unnecessary to refer, he himself always considered his papers to be the property of the Bengal government. Accordingly on his death, in addition to such letters and reports as he had previously addressed to the secretaries of the government, or through them to different public bodies in India or in England, a considerable mass of journals and letters was forwarded from Captain Murray, with whom, as mentioned above, they had been deposited. Some hesitation at first occurred as to their appropriation, the payment of Mr. Moorcroft's salary

having been suspended; but as the government finally authorized its discharge, the papers became their property. They were handed over to the Asiatic Society of Calcutta, which had naturally been interested in Mr. Moorcroft's proceedings, and had been in occasional communication with him. This took place shortly before the Editor's quitting India. At the time of his departure he offered to take charge of the papers to England, where it was thought they might be put into the hands of some person competent to fit them for public perusal, and in consequence of this offer they were subsequently forwarded to him through Capt. Burnes, and conveyed by that officer to England. Upon inspection it was found that the documents brought home consisted of a dozen volumes of journals kept with some regularity, eight volumes of letter-books intermixed with miscellaneous notes and journals, Mr. Trebeck's field-books, and a variety of loose papers. The regular journals extended only to the arrival of the party at Lé, and the miscellaneous papers to the departure of the travellers from Kashmir. The materials were therefore incomplete, and they were, as Mr. Moorcroft himself terms them in one of his letters, *rudis indigestaque moles*. "My journal," he says in another place, "if exhibited to the public, will not appear in its present shape. If even digested by myself it will be cut down so as merely to represent facts and

observations connected with my journey." To say the truth, Mr. Moorcroft's writings were so voluminous, so unmethodical, and so discursive, that the chance of meeting with any person willing to undergo the labour of examining them, and reducing them to a moderate compass and methodized order, was considered by persons most competent to judge, exceedingly remote. In order, therefore, to secure the publication, it was necessary for the present Editor to undertake the task, for the performance of which he had at least the advantage of some experience, having occasionally digested some of Mr. Moorcroft's rambling epistles for the public press of Calcutta, and the use of the Asiatic Society.

Still, however, a difficulty remained in the absence of all notices of the concluding portion of the journey, the want of which, it was thought, would give them an artificial value beyond their real worth, and consequently depreciate such portion as might be published. On the death of the late Mr. Fraser, of Delhi, however, it appeared that he had succeeded in recovering the missing documents, the journals, and notes of both travellers, up to the period of their departure from Bokhara. These were obtained from his executors, and sent home in the course of last year. Besides a volume of Mr. Trebeck's, they consisted of seven volumes of notes and journals thrown together without much regard

to compression or arrangement, and of a variety of miscellaneous fragments. They probably still leave some deficiencies, but they enabled me to conduct the narrative to its legitimate close, and to select the additional points of interest which they afforded.

The specification I have thus given, and the peculiarities of style to which I have alluded, may convey some notion of the trouble I have taken. I have, in fact, been obliged to re-write almost the whole, and must therefore be held responsible for the greater part of the composition. I have been compelled to compress unmercifully; but I have endeavoured to leave out nothing that appeared useful or interesting, and have attempted to narrate with fidelity the views entertained, or the incidents recorded by my originals. It is possible, however, that some details which are of value may have escaped me, scattered as they are through so many sheets of paper; and it may be satisfactory, therefore, to know, that the manuscripts are available, as they are deposited in the library at the India-House. Of my own fitness for the task the public will best judge; but it has been with much satisfaction to myself that, since engaging in the work, I have learned the sentiments of the individual most interested in the question. I have referred above to a letter written by Mr. Moorcroft to Dr. Abel on the subject of publishing his papers, and it has been an adequate compensation for my trouble to find that he looked

to my friendship and interest for the guardianship of his reputation, and enjoined his talented correspondent to submit to my examination and judgment whatever he might think fitting to be tendered to the public.

Mr. Moorcroft's character as a traveller will also be best elicited from the perusal of his journals. In many respects he was most eminently qualified, and was not to be surpassed in determination, hardihood, endurance, and spirit of enterprise. His scientific attainments were strictly professional, and he had neither the preparatory training, nor the means to investigate profoundly the mysteries of Nature. Neither was he an oriental scholar or an antiquarian, although he had a practical use of some of the dialects of the East, and took a ready interest in the remains of antiquity which he encountered. His chief objects were on all occasions rural economy and manufactures, as he entertained a notion that much was to be learned in both from the natives of the East, as well as to be communicated to them. So much was he impressed with the capabilities of the countries he visited, and the advantages to be derived from the cultivation of their products, that it was his serious intention to settle, upon his return, in the lower range of the Himalaya, and devote the rest of his life to the occupations of a farmer. With such views and impressions, therefore, *much that re-*

commends travels in the present day—liveliness of general description, moving incidents by flood or field, and good-humoured garrulous self-sufficiency are not to be looked for; but if the travels of Moorcroft and Trebeck are not quite so amusing as those of some more modern voyagers, it is to be hoped that they will more than compensate for the deficiency by merits of their own.

NOTE.—The materials of the Map are, first, the field-books of Mr. Trebeck, which I have Mr. John Arrowsmith's authority for stating are minute, careful, and accurate; the measurement is made in paces, but the bearings by compass are noted with great precision, and corrected or confirmed by repeated comparisons. The latitudes of Lé, of Kashmir, and of various intermediate points, were determined by observation, and the height of the barometer and thermometer at the principal elevations set down. Their reduction to feet has been calculated by the Editor upon a comparison with the monthly average heights of the barometer and thermometer at Calcutta. As, however, only one thermometer appears to have been employed, there is no correction for any difference between attached and detached, and the elevations are not to be regarded as more than within a few feet exact. In

two or three instances they are confirmed by the measurements of Dr. Gerard.

2nd. Various routes collected with much pains and industry by Mr. Trebeck at Lé, Kashmir, Peshawar, and Kunduz.

3rd. Marches of different days' routes by Mr. Moorcroft when alone, or in company with Mr. Trebeck, especially in the latter part of the journey.

4th. A manuscript map of his own route to Kashmir, liberally placed in Mr. Arrowsmith's hands by Baron Hügel.

5th. A manuscript map, believed to be by Gerard, of his route to Ladakh, belonging to the East India Company.

These, with other manuscript and published authorities, have enabled Mr. Arrowsmith to make many important additions to the geography of the upper part of the Panjab and of the countries north of the Himalaya, on the western extremity of the chain. The principal of these only are inserted in the accompanying map, as the scale of its construction necessarily excludes minuteness of detail; but they will find a place in a map of more ample dimensions, which Mr. Arrowsmith purposes to publish.

TRAVELS

IN

THE PANJAB, LADAKH, KASHMIR,

&c.

PART I.—JOURNEY TO LADAKH.

CHAPTER I.

Detention at Joshimath—Journey to Srinagar—Trout in the Alakananda—Gold dust—Jhula over the river—Use of horses in mountain journeys—Tiri—Scanty population—Raja Sudarsan Sah—Practice of Barat—Tiger trap—Wolves—Nalapani—Kalanga—Dehra—Cross the Jumna into Sirmor—Kárda dún—Márkanda river—Nahan—Sikh territory—Raipur—Bees—Pinjore—Enclosed garden—Hindur—Reascent of the mountains—Malaun—Kahalur—Bilaspur—Its capital—Mode of crossing the Setlej on skins—Sukhet valley—Raj of Mundi—Progress stopped by Sikh interference—Departure for Lahore.

THE preliminary arrangements for our journey across the Himalaya having been effected, I left Bareilly in the end of October, 1819. The principal persons of my party were Mr. George Trebeck, the son of an old friend, who had volunteered to accompany me, and to render whatever service he might,

especially as draughtsman and surveyor; Mr. Guthrie, a native of India, attached to the medical service of the Company; Mir Izzet Ullah, a native gentleman of talent and information, who had preceded me a few years before on the route I purposed to follow; and Ghulam Hyder Khan, a native of Bareilly, a stout soldier, and faithful servant*. I had hoped to have been accompanied by a gentleman eminent as a geologist and mineralogist, and he joined us in the outset of our journey; but his conduct towards the natives was so exceptionable, that I was obliged, at a very early period, to decline his assistance.

Besides our personal baggage, I had with me a quantity of English goods, chiefly cottons, broadcloth, and hardware, to the value of between three and four thousand pounds, belonging, for the most part, to

* Mir Izzet Ullah was sent by Mr. Moorcroft, in 1812, to explore the route to Bokhara, *via* Yarkand. The most interesting part of his journal has been translated and published in the *Calcutta Quarterly Magazine* for 1824. Ghulam Hyder Khan, who accompanied the party to the last, and returned almost alone to India, also kept a journal, of which a considerable portion, translated by Major Hearsay, is published in the *London Asiatic Journal*, 1835.—Ed.

Messrs. Palmer & Co., and Mackillop & Co., of Calcutta, who had agreed to incur the risk, in the hope of creating a demand for British manufactures in the heart of Asia. For the conveyance of our somewhat numerous and bulky packages, a supply of the public elephants and camels was placed at my disposal as far as to the foot of the hills. Amongst the mountains the articles were conveyed chiefly by porters, in procuring whom every facility was afforded me that was within his power by Mr. Traill, the Commissioner of Kamaon. We here also added to our party an escort of twelve Gorkha Sipahis. The expense of the whole devolved upon myself.

It had been my purpose to have crossed the Himalaya by the Niti pass before it was closed by the snows of winter. Our journey was in the first instance commenced rather later than it should have been, owing to delays in the arrival of the goods, but there was still ample time before us. On our arrival at Almora, we were assured by the native Agent, who was charged with procuring porters and cattle for the conveyance of the baggage, that everything should be in readi-

ness for us when we reached Joshimath. We arrived at that place on the 12th of December, but neither porters nor yaks in sufficient numbers were procured until it was announced that the Ghat was no longer passable. It was no doubt difficult to assemble the means of transport, and it was much to be regretted that we were not at least a fortnight earlier at Joshimath. Still, more alacrity, and a less grasping spirit in the persons employed, would probably have secured our passage, as several parties of Bhotiyas came down the pass whilst we were waiting for conveyance; and even as late as the 21st of December a body of Hiuniyas returned by it to their own country*. Knowing how essential it was that no time should be lost, I proposed to leave our baggage, and, with a few followers, attempt to make our way across the pass. The guides, however, refused to accompany me, urging the imminent peril to which we should be exposed, not only from

* Hiun dès, the snow country. In Mr. Moorcroft's journey to Lake Mánas Sarovara, it was termed U'n des, supposed to imply "wool" country; but Hiun, from hima, snow, is the correct denomination.—Ed.

the severity of the cold and the depth of the snow, but the furious whirlwinds which in the winter season prevail amongst the precipices of the Himalaya. It was therefore necessary to abandon the project, and either to remain where we were until the next summer, or adopt a different route for our journey to Ladakh.

I had been induced to prefer the Niti pass as the most direct and practicable line of road, as affording an opportunity of establishing commercial relations with the Hiuniyas and people of Lassa, and as connecting the route to Ladakh with the direction of my former journey to Ghertop. Upon considering, however, the great loss of time which our remaining at Joshimath would involve, I determined to endeavour to obtain the acquiescence of Raja Ranjit Sinh to my proceeding by way of Kulu, and with that intention removed our camp to Srinagar.

The town of Srinagar, the old capital of Garwal, is situated on the left bank of the Alakananda river. It had much declined since it was visited by Captain Hardwicke. The province was conquered by the Gorkhas

in 1803, and the capital was about the same time visited by the natural calamities of an earthquake and an inundation. It had not recovered from these disasters at the time of our visit, and more than half the city was in ruins. The palace, a spacious and rather ornamental structure, was erected about three centuries ago, but, being built of a friable stone, had suffered from time as well as accident, and was dilapidated and unoccupied. There were two Hindu temples in the city; but the chief building, and that in best repair, was a Dharm-sálá, a place of accommodation for travellers and pilgrims. The only street in Srinagar was the bazar, about a quarter of a mile in length, broad, and paved. The houses were mostly of stone, with slated and sloping roofs, and were two stories high, the lower story serving for a shop. There seemed to be but little trade; and the only manufactures were of coarse linen and woollen cloths for domestic use*.

* The latest account specifies the number of houses, 562. (*Asiat. Researches*, xvi., 148.) In 1796, when visited by Captain Hardwicke, the bazar was three-fourths of a mile long, and the houses were everywhere else so crowded together, as scarcely to leave room for two persons to pass. (*Asiat. Researches*, vi.. 336.)—Ed.

The Alakananda produces a species of trout which differs from any variety known in Great Britain. The lines employed in catching it are made here of the fibres of a creeping plant called murwa (*Sanseviera zeylanica*), and are remarkable for fineness and strength. In fishing, a small yellow flower is attached to the loose end of the line, and several nooses of white horse-hair are fastened round it: a leaden weight is passed through the centre, by which the line is sunk. The trout, attracted by the new object thus presented to them, come swimming about it, and being entangled in the snares, are drawn to the surface with great dexterity by the Srinagar fishermen *.

Gold is found in some quantities in the sand of the river, particularly after a heavy fall of snow or rain in the neighbouring mountains. The men chiefly engaged in its extrication are from Nahan. Their apparatus consists of a wooden boat-shaped trough, two shallow trays of wood, a bamboo sieve,

* The fish commonly called by Europeans the mountain trout in these countries appears to belong to a different genus, if it does not constitute a new one. (*Journal of the Asiat. Society of Bengal, January*, 1835.)—Ed.

half a gourd, a little quicksilver, some pieces of skin, and scales and weights. The trough is four feet long, eighteen inches broad, and as many deep, with a hole near the bottom at one extremity. It is placed on the river edge, with the end in which the hole is, somewhat depressed. The sieve is formed of straight pieces of split bamboo, laid side by side, and is laid across the trough. One of the two persons employed in the operation spreads a trayful of sand upon the sieve, and the other, turning up its edge so as to prevent any of the sand from being carried off, pours upon it a gourd full of water. This he repeats until the water having the finer particles of the sand in suspension, filters through the interstices of the sieve, and leaves the stones and pebbles and coarser substances on the surface. As a sufficient quantity of these washings accumulates in the bottom of the trough, the water drains off through the hole in its lower extremity, and the mud which is left is then again washed for the gold. For this purpose it is taken up in the wooden trays and fresh water poured upon it: the trays are then turned round by the hand, and

the coarser and lighter portions separated and removed from the heavier and finer, until the largest grains of gold become visible, and can be extracted, when they are wrapped up in the pieces of skin. In order to recover the finer particles of the metal, the remaining portion of the sand is triturated with the quicksilver, and that again is driven off by heat. The operation is not a source of great profit, as the washers gain, on an average, no more than four rupees a month. The gold, after fusion into a globule, is sold at the rate of six ratis weight for a Farokhabad rupee, or one tola of twelve mashas (about one hundred and seventy-three grains) for sixteen rupees. There were not above fifteen individuals engaged in this business when I was at Srinagar, but under proper encouragement it might afford a profitable occupation to hundreds*.

We left Srinagar on the 4th of February, a little before noon, and at some distance

* It probably afterwards ceased altogether, for Mr. Traill, in his statistical account of Kamaon (*Asiat. Res.* xvi. 157) states the only minerals found in the province are the coarse metals, iron, copper, and lead. Gold dust is brought from Hiundes (*Asiat. Res.* xvii. 43).—Ed.

from its western termination crossed the Alakananda by a jhúla, or swinging bridge, of considerable span, and of the construction common in these mountains. The ropes used in its formation are made of a variety of spartum or star-three grass *. The river ran between high rocky banks and was thirty-six feet deep in the middle. After heavy rain it rises as much more, and has been known to attain a total depth of eighty-six feet, rendering it necessary to carry the bridge higher up the face of the mountain. In the channel of the river are enormous blocks of stone, of an entirely different description from the adjacent rocks, and evidently rolled down by the current from a higher eminence amongst the mountains.

The road along the north or right bank of the Alakananda was nothing more than a narrow, rugged, and undulating footpath. At the distance of rather less than two miles it was crossed by the Dundu, a small and shallow rivulet, which rises at Dunsir, about ten

* According to Professor Royle the cordage of this part of the hills is made from a species of sedge (*Eriophorum comosum*), which is most probably here intended.—Ed.

miles distant, in a north-easterly direction. A mile and a half further, the road led through a small town, called Muletha, the lands of which between the town and the river, were industriously cultivated with wheat, sugar-cane, tobacco, and onions, arranged in terraces, and partly enclosed by dry wattled fences. The path then diverged from the river, and followed a more northerly direction along the left bank of the Takoli rivulet, descending to it and crossing it repeatedly until our arrival at Takoli. The whole distance was above twelve miles, and was accomplished by our loaded porters in six hours. The way was for the most part wild and desolate, without partaking of the majestic character of the scenery of the more elevated mountain districts.

Our cattle had started on the 3rd, swimming across the river at Rani-hath, a village on the right bank of the Alakananda, opposite the gate of the palace at Srinagar, in order that they might proceed by a safer though more circuitous route. In the more difficult portions of their journey, porters had been provided to relieve them of their loads,

but the grooms, confiding in the experience which they imagined they had acquired, refused to avail themselves of this aid, and consequently a valuable mule perished; his load came in contact with a projecting rock, and he was forced over the edge of the precipice on the other side of him, and killed by the fall. This was the fourth animal I had lost. The horses were killed by accidents, with difficulty avoidable, but the mules perished chiefly through the carelessness of their attendants. If horses are employed in such journeys they should not exceed fourteen hands, and those bred in the hills should be preferred. The mule, however, is a much safer animal, but for the Himalaya, the beast that excels all in caution and security is the jabu, or mule from the Yak of Tartary, and the cow.

February 5.—We left Takoli at 10 A.M., and for some time followed the course of the rivulet, crossing it repeatedly until the path quitted it on the right, and wound up a steep acclivity. From the summit of the ascent there opened the well cultivated valley of Naraini, watered by the Kaonli rivulet, run-

ning towards the north-west. We were met by the principal farmer of this demesne, an active and intelligent old man, who in reply to my astonishment at the absence of habitations in a tract of such apparent productiveness, informed me that at no remote period villages were numerous in the neighbourhood, but that the exactions of the Gorkha government had driven the people from their homes, and they were only now beginning slowly to return and resume their agricultural labours. The descent to the village of Deul, near which we halted, was almost precipitous. We encamped on a rising ground, on the left bank of the Kaonli, about a mile from its confluence with the Bilangra, a respectable river that rises in the mountains of Kedar. Our next day's march lay along the course of this river to Tiri.

At Tiri, Sudarsan Sah, the son of the last Raja of Garwal, had taken up his residence. He had been driven from his patrimonial possessions by the Gorkhas, and had sought refuge in the British provinces. After the Nepal war a part of the district of Garwal was restored to the Raja, but Srinagar and

the country to the east, were retained by the British Government, in order to preserve unbroken the line of frontier formed conveniently by the Alakananda and Bhagirathi. The retention of the ancient capital of his race is, however, evidently a source of much mortification to the Raja, and it may be doubted if the country would not derive more benefit from his residence there, by attracting population and promoting commerce, than from its continuing in our possession. Tiri is far removed from the principal line of road, and is recommended by no peculiar advantage. At present, indeed, it contains only the house of the Raja, a very humble mansion, and the dwellings of his followers: the assembling population are dispersed in tents over the plain. At the distance of about half a mile from the residence of the Raja, the Bilangra falls into the Bhagirathi.

The country ceded to the Raja of Tiri is bounded on the east by the Mandakini, a river which falls into the Alakananda near Rudraprayag, on the west by the Pergana of Negwa, on the south by the Tapoban mountain, and on the north by Nailang, extending

about one hundred miles from east to west, and fifty or sixty from north to south. The whole revenue derivable from this extent is estimated at but sixty thousand rupees, which is wholly disproportionate to the extent of the Raj. A great portion of the territory, however, must ever be unproductive, and much of that which might be brought under cultivation is without inhabitants. The scarcity of population in the habitable parts, was ascribed by the Raja to the oppression of the Gorkha government, which not only compelled many of the people to desert their villages, but carried off vast numbers of individuals, especially women and children, to be sold as slaves. At the same time there is no doubt that the population was always kept down by the practice which has immemoriably prevailed in many of the mountain districts, of the sale of children by their own parents, in times of scarcity and distress. In some places, I was credibly informed, persons married more wives than they had the means of maintaining, for the purpose of raising money by the sale of their offspring. And although this may not be strictly true, yet

the story itself proves that the people of these countries are accustomed to look to the disposal of their children as means of subsistence.

On our approach to Tiri the Raja came to meet us, and accompanied us to our tent. I had several interviews with him during my stay, and found him an active, intelligent man, very desirous to improve the state of his country. According to his assertions an annual tribute was paid by Hiundes to Garwal a very few years back, and was suspended only by the Gorkha conquest. The Raja had, therefore, sent a mission to Choprang to claim its renewal, and had been informed that his demand would be referred to the Court of Pekin. As the Chinese authorities must be aware that the Raja of Garwal is, in some degree, dependent upon the Government of India, the circumstance is likely to inspire some suspicion of the real origin and object of this demand.

I received a visit also from the uncle of the Raja, Pritam Sah, who, at the period of the Gorkha invasion, was taken prisoner, and carried into Nepal. He had no great reason,

however, to regret his captivity, as he was kindly treated, and obtained in marriage the daughter of Ram Sah, the uncle and minister of the Nepal prince.

Upon my march from Srinagar I had observed preparations making for the performance of the ceremony called Barat, the hero of which I learned lived at Tiri. On my arrival at that place I sent for him, and was visited by a man of about sixty years of age, named Banchu, accompanied by his two sons, one about thirty, the other about fifteen, both his pupils. Barat is sliding down a rope fastened at one end to a tree or post on some elevated point, and carried obliquely to some fixed object below, to which it is attached. It is intended as a propitiatory rite to Mahadeva, and is performed to avert some impending evil, or to procure the removal of any actual calamity. It was, accordingly, performed by Banchu when the cholera was raging at Almora, and was supposed to have obtained that immunity from the disease which this part of the country actually enjoyed. Banchu brought me the articles employed on these occasions: a rope made of

grass, about three inches in diameter, a wooden saddle, and two short sticks. The length of the rope used in his last descent was twelve hundred cubits. The saddle is something like a shallow and short pack-saddle, without pads, and with a very sharp ridge. The ridge was a foot and four inches long, the sides or flaps were eight inches deep, spreading outwards, so that the breadth at the bottom was three inches and a quarter. The saddle was scooped out internally nearly to the ridge to let in the rope, which fitted it exactly The sticks are fastened transversely from flap to flap, so as to give support to the thighs. The performer, bestriding the saddle, throws his body as far back as possible, and descends the rope rapidly by the effect of his own weight, aided by heavy stones fastened to his legs. Persons are stationed underneath with transverse cords to endeavour to catch him should he fall, and others stationed at the foot of the rope seize him and carry him some way forward, so as gradually to diminish the momentum of his descent. The performer is nearly senseless when he reaches the ground, and is some

time before he recovers; a collection is made for his benefit, and he derives no slender credit from his patriotic devotion. There does not seem to be much danger in the operation when there is adequate dexterity in the performer, as Banchu had achieved the feat sixteen times without encountering any serious mishap.

Trout are caught in the Bilangra with nooses, on the principle of those made use of at Srinagar, but somewhat differently arranged. The snares are set at night, and eight fish were brought me, as the produce of one set of lines. The fish thus caught are seldom above a pound in weight.

The vicinity of Tiri is infested with tigers, and a kind of trap is used to catch them. This is a small chamber of loose, heavy stones, with a sliding door at one end, and a loop hole at the other. The door is kept raised by a slight moveable projection, and from the upper part of it a rope passes over the roof of the hut, which, entering it by the loop-hole at the other extremity, is tied to the neck of a goat, who is slightly fastened within. The tiger, attracted by his prey, enters

the hovel, and attempts to carry off the goat. In the struggle that ensues, the door, shaken by the rope in contact with it, frees itself of the slight impediment opposed to its descent, and, falling down by its own weight, secures the tiger. The animal is then shot through the loop-hole.

There is a road from Tiri to Hiundes across the Himalaya, by way of the Nailang pass, which is said to be practicable for loaded yaks and mules. To Daba it is about a month's journey.

On the 12th of February we resumed our journey, and crossed the Bhagirathi by a swinging bridge. Both banks of the river, as far as the eye could reach, presented the appearance of cultivation. The road, leaving it on the right, proceeded through a pass on the left, and followed the course of a considerable feeder of the Bhagirathi, called the Chakarwara. We crossed large rice grounds, separated by stone fences, and saw several villages under repair, and land breaking up for tillage. Cotton is extensively cultivated in this neighbourhood, and at the village of Manear, where we halted, cotton cloths are

manufactured: coarse blankets are also made here, usually about seven feet and a half long, by three feet and a half broad; they sell for a rupee each. There is some traffic with the plains, consisting chiefly of the barter of grain for Lahore salt.

The early part of our next day's journey led us through many fields of young poppy plant, which is cultivated partly for its oil, and partly as a pot-herb. It is eaten both raw, and dressed with butter-milk, salt, and capsicums, and is, in neither form, unpalatable or deleterious. Its use is probably restricted to its young state. As the road ascended it presented a pleasing view of cultivated land, and at a considerable distance the not less gratifying prospect of the Gorkha fortress of Chamwa-gerh in ruins. The mountains are not very high, and consist, near the path at least, of a bluish slate, occasionally coloured with iron. The Banj oak (*Quercus incana?*) is the most common tree, mixed with the Kaiphal (*Myrica sapida*) and the Burans, or crimson Rhododendron. Firs clothe the more lofty summits. Descending the Chamwa pass, at the bottom and on the

left, extending southward, is the Nagri Sirai, or valley, through which flows the Heül Ganga, a feeder of the Alakananda. After again ascending a long and steep acclivity, the road passes along a high ridge above the well cultivated vale of Bhomund, in which is the village of Jhuda. It then crosses the hills which confine the valley on the north, and continues through a forest of birch and pine. Amongst the underwood I noticed two varieties of the Sitbharua (*Daphne cannabina*), the creeper from the bark of which paper is made in these countries, one with white and one with purple flowers. Our resting-place was the village of Sukliana, on the right slope of a valley, through which runs the Sungh rivulet. This stream flows into the valley of the Dún, and, after a southerly course of about eighteen kos, falls into the Ganges a little below Rikhi kés.

After proceeding some distance along the Sungh, on the following day we left it, where it was joined by another small stream, the Jura Gadh, and crossed the steep pass of the Jháli Khal, directing our course to the southwest. Here Mir Izzet Ullah, who was in ad-

vance, disturbed a pack of wolves in the act of pulling down a large deer, or, to speak more correctly perhaps, a kind of goat, and, having put them to flight, gave the animal its *coup de grace* in the prescribed manner (by cutting its throat), and secured a seasonable supply of venison for the Mohammedans of our party. The wolves kept prowling about us, and were not finally dispersed until several shots had been fired at them. They were of a reddish colour, with long, lank bodies, and bushy tails. The natives call them "khoa," and assert that a pack of them will attack and kill an elephant. The animal, for which we were indebted to them, was a young female, three feet four inches tall at the shoulder, and five feet four inches in length, measured along the neck and sides. The fur of the head and upper part of the body was of a dark-brown colour; that of the belly and legs white. The head was handsome, and surmounted by two cylindrical horns, measuring from base to tip seven inches and a half; through two-thirds of their length they presented alternate rings and depressions, but then became smooth,

and terminated in a sharp point. A mane of stiff black hair ran along the whole of the back from the head to the tail; upon the neck the hairs were seven inches long, but on the back not above three inches. Round the whole of the neck was a rough bristly tippet of black hair, about four inches long. The natives gave the animal the name of Saraon. The flesh was dark-coloured and high-flavoured, without being rank *.

Having been delayed by this adventure, my tents had gone forward, and left me and some of my party so much behind that we were unable to overtake them before it grew too dark to proceed. We therefore sought shelter for the night in a buffalo-shed rudely constructed of boughs of trees, which stood near the road, under a projecting point of rock. In the middle of the night we were startled from sleep by a tremendous peal of thunder, and a violent storm came on, which continued with little intermission till day-

* According to Mr. Hodgson (*Jour. Asiat. Society* of Bengal, Sept., 1835) the name Saraon is applied in the Himalaya to the animal which he denominates Antilope Thár, and of which the description agrees nearly with that of the text.—Ed.

break. The rain soon found its way through the roof of our shed, and rendered our situation sufficiently uncomfortable; but Izzet Ullah and myself congratulated each other that we had escaped the more serious evil of an earthquake or an avalanche. The words were scarcely uttered, when a low, rumbling, and confused noise was heard, and presently the loud rushing and crashing of blocks of stone threatened immediate destruction. The slip, however, soon ceased, and was confined, as it afterwards appeared, to a distance of about fifty yards from us. Next morning at daybreak we set off in a severe shower of hail, and after a fatiguing march of five hours, came to our camp at the conflux of the Bundela and Sunga rivulets, distant only two kos from the new cantonment of Dehra in the Dún, or Gurudwára, as it is sometimes called.

Moving from hence, we proceeded along the ridge of Nala Páni, from which we had a beautiful view of the valley of the Dún. Advancing towards the cantonment, we left the height of Kalanga upon our right, a place rendered memorable by the death of General

Gillespie, and the repulse of two attempts, at different periods, to carry it by storm. Two obelisks mark the spot where so many gallant lives were lost in the attack upon a contemptible fort now rased to the ground. We remained two days at Dehra, and received every attention from Lieutenant Beveridge, who commanded the station in the absence of Captain Young; that officer having gone to Haridwar, to superintend arrangements making for the great mela, or fair, which was shortly to be held there *.

On the 18th we resumed our route, and proceeded on that and the two following days in a direction west by north, over a tract of even ground, with little cultivation and few villages. From the plain of Dehra the road descends to another level, about thirty feet lower, by the pass of Nathuwala, and continues of the same character to the banks of the Jumna. Along the middle of the valley runs a considerable rivulet, the Asan, which receives the waters of several mountain

* In 1827, Captain Mundy speaks of Dehra as an inconsiderable town, but much improved by the exertions of Mr. Shore, the political agent.—*Sketches in India*, i. 184.—Ed.

streams, and pours them into the Jumna. The latter river, at Ráj ghat, where we crossed it, is about a hundred feet broad.

After crossing the Jumna we entered the Raj of Sirmor. Near the left bank, at a place called Pahuta, are the ruins of a stone fort, and in the vicinity are some grass huts, tenanted by persons employed in cutting timber, chiefly sal and sisu, in the forest of Raj-ban which stretches to the foot of the northern hills. The route continued through the Dún or valley of Karda, to the town of the same name. Prior to the Gorkha conquest, the Karda Dún is said to have contained eighty-four populous villages: at present there are not above seven, and those of no great extent*. The valley, however, is considered unhealthy, even when fully cultivated.

From Karda we proceeded along the low ground, crossing a number of small streams, more or less dry, and for a considerable distance along the bed of the chief of them, the

* In 1815, the number of houses in the Karda Dún was 280, containing only 600 inhabitants: the valley was exceedingly unhealthy, especially in the rainy season.—Ed.

Bhata, which runs into the Jumna, below Pahuta. At Kolson we left the line of the river, and ascended an eminence leading to a forest, which forms the western boundary of the Karda Dún. The spot is remarkable for the defeat which the Rohilla prince, Gholam Kader, sustained here from Jagat Prakas, the Raja of Sirmor. The Rohilla had overrun Garwal with little resistance, and counted upon equal success in Sirmor. The Raja, abandoning the valley to the enemy, posted himself at this pass, and after an obstinate conflict, in which the impetuosity of the Rohillas at first nearly overpowered the steady valour of the mountaineers, completely repulsed the assailants, and compelled them to evacuate his territory. This occurred about two years before Gholam Kader made himself master of Delhi. The forest is full of small swamps and springs, the waters of which collect and form the river Markanda, said by some to fall into the Kosila, near Patiala, and by others to spread over the low grounds and disappear *. We encamped at

* In the map it unites with another stream from the mountains,

a ruined village, called Bakri ka bagh. and on the following day marched to Náhan.

The town of Náhan made a figure in the late Nepal campaign, having in front of it the forts of Jamta and Jaitak, which for some time gave employment to the British forces under General Martindell. They were only ceded upon the fall of Maloun to Sir David Ochterlony. A stone obelisk to the memory of Lieutenant Thackeray, killed at Jaitak, in December, 1814, has been erected here by Captain Wilson *. The town is situated in a straggling manner along some eminences: the houses are mostly of stone, and the place has a cleaner and handsomer appearance

and the united river forms the chief branch of the Sursooty, or Saraswati, about fifteen miles west from Thâneswar. The Saraswati was formerly represented in the maps, concurrently with Hindu tradition, as losing itself in the desert. In the map referred to it falls into the Gagar river, and to that stream apparently the disappearance of the waters is ascribed, as it is made to terminate abruptly. This change of name, although authorized by local use, is objectionable, as introducing a nomenclature at variance with ancient Hindu geography, in this instance correct.—Ed.

* According to Captain Mundy, a lofty obelisk, on the bank of a spacious tank, in the centre of the town of Náhan, marked the tombs of four British officers, killed during the attack on Jaitak. —Ed.

than the generality of Indian cities. It commands beautiful views of the neighbouring mountains and valleys, with a distant prospect of the plain, and the river Markanda winding through them. Náhan is the residence of the Raja of Sirmor, Fateh Prakas, a youth of about fourteen years of age, who has had a tract of territory restored to him, estimated to yield an annual revenue of 40,000 rupees.

On the morning of our departure from Náhan the young Raja brought me a leopard, that had been shot near the town on the preceding day. His attendants asserted that there were both lions and tigers in the adjacent hills, but that the former rarely came down to the lower ranges. We resumed our journey on the 1st of March, in a western and southerly direction, along a rugged and narrow descent. At various parts of the declivity, reservoirs of water for bathing and drinking have been constructed of stone, by charitable individuals. At the foot of the hill is the bed of the Sulani rivulet, a feeder of the Markanda; it was now dry. The road then led up by a short but steep ascent,

through a wood and grass jangal to the cultivated lands which belong to the Sikh border village of Dera, a place of no great extent, but protected by a mud fort.

Our next day's march soon took us beyond the cultivated belt that encloses Dera, and passed through much low jangal, intersected by water-courses, now mostly dry. Several villages occurred on either hand. At one of these, named Laha, we saw the people pulling up the white stalks of the lotus (*Nymphæa nelumbo*), which they use as a vegetable. They are cut in pieces and boiled until tender, when they are taken out and squeezed, and put into boiling butter, with some salt, with which they are eaten. In this neighbourhood is much land cultivated for sugar-cane, enclosed by fences of a kind of strong grass, to protect the cane from the deer. We encamped at the village of Buriwala, in a Mango tope. On the following day we proceeded through a country of a similar character to the town of Raipur, the residence of Krishna Sinh, the uncle of the Náhan Raja, and on the next day marched through Ram-gerh, a moderately large town,

with a good mud fort, belonging to Hari Sinh. Having preceded my party, I placed myself in a cool spot, under the shade of a large pipal tree, on the branches of which I counted ten swarms of bees, of the kind called Bhaónra. Knowing the irascible temper of this bee, I warned my followers as they came up not to approach the tree. Notwithstanding this injunction and my own vigilance, as I remained in the shade, the bees were disturbed by a boy belonging to my train, and we soon felt the consequences. A bee fixed itself upon my left eyelid, and I had scarcely pulled it off when I was assailed by several others, who all aimed their attacks at my face. I fled through a thick fence into a neighbouring field, where a peasant coming to my aid set fire to some straw, and directed me to sit to leeward of the smoke. The camp soon exhibited a scene of the greatest confusion, and men and beasts were flying in all directions. Some of the fugitives sought shelter in Raipur, but were followed by their unrelenting foes, and the whole town of Raipur was presently in commotion. The scene was irresistibly ludicrous, however

much the probability of mischief checked occasionally the disposition to laugh. At length the fury of the bees relaxed, and they retired to their head-quarters, leaving us at peace only at the close of day.

We broke up our camp the next morning (5th March) early, for fear of a fresh inroad. I marched up the pebbly and almost dry but very broad channel of the Gagar, but Mr. Trebeck proceeded by another route, which lay through the town of Mani-majra. The road I followed, after leaving the bed of the river, continued along its left bank. On the end of a low range of clay hills, running from the west, and stopping on the right bank, stands the fort of Chandi, commanding the pass. A little farther onwards was a custom choki, belonging to the Raja of Patiala, where we saw a quantity of pomegranate husks, detained until they had paid duty. They are used here for tanning light hides and in dyeing. The path then crosses the Gagar, and leads to a narrow pass, beyond which Pinjor is situated. Pinjor is at present a small village, but the sculptured stones in the walls of the cottages, and the

carving and painting on the walls and columns of a large baonli, or enclosed well, indicate a period of greater wealth and importance. There are also numerous fragments of Hindu sculpture and architecture scattered about. The fort was dismantled by a French officer, M. Bourquin, in the service of Daulat Rao Sindhia, but he left the inner wall standing, which still constitutes the enclosure of a series of six terraced gardens, covering above two hundred bigas, or above sixty acres, originally well supplied with water by stone conduits, leading from a reservoir in the highest part, and forming in their descent from terrace to terrace, cascades, fountains, and lakes. The effect of the whole when maintained in order must have been highly pleasing, and in the hot weather refreshing. In the first, or upper and northern garden, stands a house, the former residence probably of the Killadar; it is small in proportion to the extent of the grounds, but is neatly built, and commands a view of the whole of the enclosure. It is occupied by a Thannadar, on the part of the Raja of Patiala, to whom it belongs.

The garden contains mango, orange, apple, and pomegranate trees, which bear fruit, and some Lombardy poplars. Poppies and sugar-cane are also cultivated in some of the divisions, and in others roses, from which a small supply of atar is annually manufactured for the Raja's use. The fort of Pinjor has often changed masters.

On quitting Pinjor we proceeded through a jangal of the small variety of prickly bambu, called Káth Báns, abounding with game, pea-fowl, wild fowl, black and grey partridges, elephants, buffaloes, leopards, and tigers. Wild cats are met with in the lower grounds, and lions on the summits of the hills, as are several species of deer, as the chital or spotted axis, the pára or hog deer, the káka, which resembles the roebuck, and the barasinga or stag. On our way to Gorakhnath we crossed the new road from Pinjor to the British cantonment of Subathu. Much ground upon our way was clearing for cultivation, by burning and felling the jangal. Proceeding along the valley of Pinjor we passed through much wood, chiefly babul, Indian fig, and bambu. The river Báladh,

coming from the north and east, forms the boundary between Patiala on the east, and Hindur on the west. Badia, a small village on the right bank, belongs to Hindur, and is distinguished by a well-defined and broad road, which begins here and goes to Nala-gerh. On the left the river Sarsa, rising in Pinjor, receives the Báladh, and, after a course of about twelve kos, falls into the Setlej at Kanoli. Villages were numerous, and cultivation was abundant throughout our journey on this and the ensuing day to Nala-gerh, a fort belonging to the Raja of Hindur, taken from him by the Gorkhas, but recovered and ceded to him by the British. The Raja is as often called the Palási as the Hindur Raja, from his residing at the former place. Whenever spoken of by his people he was mentioned in terms of affection.

On the 10th of March we departed from Nala-gerh, and recommenced our journey upwards, towards the Himálaya, of which, for some time, we had skirted only the foot of the southern ranges. We passed over many water-courses and successive eminences, from which we had extensive and beautiful pros-

pects over the plains, with the Setlej meandering through them. The road continued, upon the whole, on the ascent, to the pass of Jaynagar, leading to the valley of that name. At the western extremity of the valley on the right is the village of Panjal, separated from the road by the Gambhar, a small river that rises here, and falls into the Setlej below Bilaspur. On the left is the village of Dopé. Further on the road crosses the Jún-ki-gádh, a stream that falls into the Gambhar, and divides the state of Hindur from Bagla. The population of the former is estimated at 20,000 persons. A considerable portion of the working classes is employed by the Raja, who pays them only in grain. The roads through his territory are broad and good, and made at little cost.

On the heights opposite the pass called Pushkar Ghat in Bagla, stands the fort of Malaun, which was taken by Sir David Ochterlony from the Gorkhas. A pile of stones upon an eminence marks the spot where Bhagti Thapa, one of the Gorkha commanders, was killed. The valley of the Gamrora, which this fortress protects, is

populous and well cultivated. Along the courses of the different small streams by which it is intersected are rows of pear trees, which at the time we passed them were in full blossom. Villages occurred repeatedly on either side of the road. At one of these, called Kat'hepur, we were met by a horseman, who had been sent by the Raja of Kahlur with orders to attend us to Bilaspur, his present residence, where we arrived on the 12th of March.

Considering me, apparently, as an itinerant trader, little better than a pedlar, the Raja, at first, seemed disinclined to honour us with any particular notice. I had, however, throughout my march, continued to exercise my professional skill and administer medicines to the sick. I had also frequent opportunities of performing the operation for cataract, which is singularly common in the hills. At Bilaspur, during the three days of our stay, I operated for this complaint upon eighteen cases. The Raja hearing of this, and, being indisposed, condescended to visit me and request my assistance. He was very anxious that I should have remained with

him until the effect of my treatment could be fully ascertained, but this was impossible, as it was necessary for me to secure my progress to Kulu whilst the passes were open. I was, therefore, obliged to decline compliance with his solicitations.

Bilaspur is not unpicturesquely situated upon the left bank of the Setlej, which is here a rapid stream. The Raja's dwelling, whitened and decorated with flowers in fresco, is neat, but not large. His garden, containing chiefly pear and apricot trees, rose bushes, and beds of narcissus, had been suffered to fall into neglect. The Bazar was in a ruinous state, more than half the shops being deserted. This was ascribed to the town having been twice plundered by the Gorkhas within a few years; but it appeared that the Raja devoted almost his whole time to his private pleasures, and left the management of public affairs entirely to his officers. by whom the people were pillaged and oppressed. This Raj was formerly of great political importance in the Western Himálaya, and enumerated twelve Thakurs, or feudal chieftains, as subject to its authority. These

lordships have now, for the most part, either become independent, or have merged into more recent territorial sub-divisions.

On the 16th of March we proceeded up the left bank of the Setlej, opposite to the town of Dehr. Both banks of the river were lined with a succession of small villages the whole way. Dehr, which belongs to the Raj of Sukhet, on the right bank of the Setlej, is defended by a fort of masonry. The passage of the river was effected on deris, or inflated skins. My party consisted of about three hundred persons, sixteen horses and mules, and about two hundred maunds of merchandise and baggage. Thirty-one watermen, each managing a skin, conveyed the whole across in little more than an hour and a half. The Setlej was about one hundred and fifty feet in breadth, and was running at the rate of five miles an hour. The skins used for this purpose are those of bullocks, which are stripped off in this manner. An incision is made in the back part of a hind leg, almost the whole length, and the skin, being flayed off from the hock upwards, is turned forwards, the same management being observed

as in the process technically termed casing a hare, except that the skin is cut through below and round the knees and hocks, the legs being left adhering to the body. The hide is then doubled up, and buried for a few days, in order to suffer so much decomposition as will favour the separation of the hair, which is rubbed off by the hand or a blunt wooden knife, without abrasion of the skin. The skin is then turned inside out, and the natural openings of the eyes, &c., stitched up; it is then turned back again, and the main incision sewed up with thongs of raw hide. The open ends of the limbs are tied, except one, which is left open, as a tube by which to inflate the skin. The thin tar procured from the deodar and other species of pine, is then poured into the skin, and shaken about in it until the flesh inside is well charged with it, and it is then tanned exteriorly, by steeping in an infusion of pomegranate husks. When required for use the waterman blows into it through the hind tube, and ties up the opening. A double thin cord is fastened round the inflated skin, across which the waterman places himself on his chest, holding the string

with his left hand, whilst, with his right, he manages a short oar, assisting his passage with his hands and feet. Sometimes a piece of stick is tied in one of the legs, and left projecting from it for the waterman to hold instead of the string. The passenger, with as much baggage as he can carry, sits astride the ferryman's back, with his knees bent, and resting on the skin. When heavy and bulky articles are to be transported, two skins are brought together, the ferryman of each laying hold of one of the projecting legs of the other skin, and a frame or raft, supporting the burden, lies across the backs of both. A charpai, or Hindustani bedstead, forms the most convenient raft. Horses and mules are led over, the waterman holding them by a string in one hand, whilst he paddles himself and his human load across in the manner above described. When not inflated the skin is slung over the back, and carried about without any inconvenience. No expedient seems equally well adapted for the transport of large bodies of men and baggage over the most rapid rivers, or so likely to be serviceable as a wreck buoy or float, to be carried

on board ship. The cost of a deri is usually a rupee and a half, and its weight is not above sixteen pounds. A couple of deri-men usually accompany persons of rank hunting in the hills, in order to carry them across the mountain streams, the rapidity and fury, if not the depth of which, render it impossible to ford them without such assistance.

From Dehr to Sukhet the road lay partly over cultivated ground, and partly over rugged paths obstructed by large blocks of limestone. As it approaches Sukhet several forts are seen on the mountains to the left, amongst which is Bagra, belonging to the Raj of Mundi. We encamped near a spring, which forms one of the sources of the Sukhet river.

On the arrival of the first of our party at the village a general panic prevailed, and many of the people prepared to make their escape into the neighbouring thickets. A report had spread that the Feringis, or Europeans, were approaching with a numerous host to occupy and devastate the country, and the villagers imagined those of my people who had been sent on in advance

to be the precursors of the invading host. When they found, however, that our proceedings were wholly pacific, and that we paid for the supplies we required, their terrors were allayed, and gradually confidence succeeded to apprehension. They had never yet beheld a European, and curiosity brought crowd after crowd to look at the Sahib log until it was dark. Night set in with a thunder-storm, and in the darkness we were disturbed by the singular howling of the hyænas, who approached our encampment, and are said to be common here *.

The valley of Sukhet is not very extensive, and, except to the south, where it is bounded by the Setlej and part of Kahalur, the whole Raj is shut in by the mountains of Mundi. The land is well cultivated, and more productive than any tract of similar extent I have seen in the Himálaya. The western side is watered by the Sukheti, and the

* From this point until his return to the plains, Mr. Moorcroft's route proceeds through a tract of country which, belonging to Ranjit Sinh and his dependent Rajas, has not been surveyed, and has been but little traversed by Europeans. Forster went over part of it in his journey to Kashmir, but he had no opportunity of making any very careful observations.—Ed.

eastern by the Kams, which rivulets unite and fall into the Beyah or Byas river above Mundi. The division between Sukhet and Mundi is indicated by a narrow ditch called Mukhi.

Having resumed our route, and entered the Mundi territory, we were met by a body of men armed with matchlocks, bows and arrows, and swords, headed by the commandant of the fort of Ner, on the left of our path, who prohibited our further progress without positive orders from the Raja to sanction our proceeding. A letter was, therefore, dispatched, requesting the Raja's permission to traverse his district, and sent off by one of my people, who was acquainted with the country.

In the evening the messenger returned with information that some Sikhs, who were at Mundi, for the purpose of receiving tribute, had threatened the Raja with the displeasure of Ranjit Sinh, if he suffered us to pass through his country; and shortly afterwards came a letter from the Sikh Sirdars, desiring us to remain where we were until an answer from their master, to whom informa-

tion of our coming had been communicated, could be received. To this I replied, that as I was simply a merchant, travelling to Lé, with goods for sale, on which I was willing to pay all customary duties, I knew of no reason they could have for detaining me, and that, if they persisted in their purpose, I would have recourse to their Chief, and repair myself to Lahore. After some discussion they were obliged to consent to this arrangement; and, accordingly, taking a few of my people with me, I left the rest and all the merchandise under charge of my young friend and companion, Mr. Trebeck, at Dhansi, the place at which we were encamped. The Raja of Mundi promised to watch over its security, and furnish every facility that might be desired for its conveyance and disposal, as well as provide supplies for the people. He repeatedly assured me of his regret at opposing any impediment in my way, and of his being compelled so to act against his wishes by fear of the Sikhs; he even offered to allow us to proceed if I would take all the responsibility upon myself, and assure him of the countenance of

my government. As, however, I was travelling in a mercantile character alone, without pretending to any political authority, I declined making him this assurance, and, thanking him for his civility and friendly intentions, persevered in my determination to appeal in person to Ranjit Sinh. Accordingly, on the 23rd of March, I set off for Lahore.

CHAPTER II.

Resources of the hills—Paper from the sitabharua—Lichen for mucilage—Honey and wax—Fir and oak timber—Fruits—Madder—Hemp—Turpentine—Cattle—Birds—Fish—Fishing-line—Improvements dependant on European settlers.

BEFORE quitting the Himálayan provinces, which are more or less subject to British authority, I shall briefly notice some of their natural and artificial productions, which, if made the subject of attention and improvement, might conduce materially to the prosperity of the mountain population, and enhance the value of an extensive region, which is now comparatively unproductive.

Of the articles which might be profitably exported, one of the principal is paper, which might be manufactured to almost any extent from the Sitabharua, a plant that is everywhere found in great abundance. The bark of the stem and branches is detached by

bruising, and the cuticle taken off by scraping. The bark thus cleaned, is sometimes boiled to make it tender, and at others, simply steeped in cold water, when it is pounded into a paste and then strained through a cloth, by which the coarser fibres are separated. The finer paste is spread upon a cotton cloth stretched on a frame, and is dried in the sun, when it is raised from the frame and folded. The paper thus rudely manufactured, is of a dirty white colour, and is less fit for writing than for packing; but it is admirably adapted for the latter purpose, as well as for the manufacture of pasteboard and *papier machè*, by its great strength and toughness. Improved processes in its preparation might also improve its appearance. Owing to the want of any glutinous or mucilaginous admixture, the sitabharua paper becomes rough and downy by rubbing, but when, as is sometimes practised in Nepal, the milk of unripe wheat is mixed with the pulp, the paper retains a smooth, uniform, and somewhat lustrous surface.*

* For a description of the plant, (*Daphne cannabina,*) by Dr. Wallick, see *Asiatic Researches*, vol. xiii.; a full description of the

It would not be difficult to find in the hills, a mucilage which would give consistency to the pulp of the sitabharua paper, and which might be equally serviceable to calico printers and others. In the neighbourhood of Joshimath, and many other parts of the hills, there hangs from the branches of the oak, the yew, and the pine, a green lichen in long tresses, applicable to such a purpose. Without separating the cortical part in which the colouring matter resides, I boiled some of this lichen, and speedily obtained a greenish insipid thick mucilage, or size, which by evaporation was soon reduced to the consistency of gum. The supply of this lichen is co-extensive with the limit of forest in the Himalaya. In the vicinity of Joshimath, a man could collect in the course of a day, three times as much as he could carry, although it is very light.

In most of the villages of the northern ranges of the Himalaya, bees are kept; and

mode of making the paper by Mr. Hodgson, is given in the *Jour. of the Asiatic Society*, vol. i. p. 8. Some of the pulp in the shape of bricks was sent to Scotland, where the paper made from it was employed to take proof impressions of copper-plate engravings. The first trials did not appear to answer, and no others were instituted. *Edinburgh Jour. of Science*, for *April*, 1829.—Ed.

honey, whether the produce of the wild or domesticated bee, is an article of sale. It is commonly sold in the bazars at four to six seers for a rupee, and although not much thicker than syrup, is of a flavour equal to Narbonne, and less cloying to the stomach. There is no great demand for wax, otherwise this might be also plentifully supplied; at present, the comb, after the honey is compressed, is usually thrown away. The domestic bee is known by the name of mahru, mohri, and mari; it is not much above half the size of that of Europe, but is very industrious and mild tempered. The wild bee is termed bhaonra, a name by which the people of the plains designate the humble-bee, but it is not half the bulk of that insect, though larger than the domestic bee of Europe. It is of a darker colour generally, and has longer and broader wings. Its temper is irascible, and sting venomous. It commonly builds its nest under projecting ledges of rock, overhanging steep mural precipices, in a situation almost inaccessible to bears and men. The hive contains a large quantity of both wax and honey. The latter, if gathered before the

month of Bhadra, is fully equal to that of the domestic bee, but in that and the following month, it is said to produce intoxication, followed by stupefaction. This effect is, with some probability, ascribed to the bee's feeding on the flower of a species of aconite, which is in bloom in Bhadra and Asharh, and which growing high up the mountain, is beyond the flight of the domestic bee. There is little doubt that both the honey and wax might form valuable articles of export to the plains.

The fir timber of the hills has been considered inferior to that of the north of Europe, but it has scarcely yet been submitted to a fair trial. That which was sent to Calcutta was cut at the foot of the hills, or on the lower ranges, and in this situation it is notoriously much less compact and strong than at higher elevations; but leaving this for further investigation, there is another kind of timber which has not yet reached Calcutta, and which appears to possess qualities highly deserving of a trial. This is the live or ever-green oak, of which there are three varieties, called by the natives near Joshimath, banj, mohru, and khasru. The banj occupies the lower slopes

of the mountains; the mohru, the middle and upper part; and the khasru, the higher elevations, as far as it meets with soil enough for its support.*

The wood of the banj is tolerably hard and durable, but the timber does not acquire any considerable size. That of the other two varieties is hard and very durable, and the trees attain vast dimensions in thickness and height and spread, before they fall. Their timber is employed in the hills for the shafts of ploughs, and is often carried to a considerable distance. It is procured chiefly by lopping the branches, for to cut down an entire tree exceeds the powers of the mountaineers; neither would large blocks be of any use to them, although tempted by the fall of a tree, they sometimes succeed in cutting it into logs of five or six feet in length. I saw, however, several noble trees lying on the ground, which had resisted all attempts at their mutilation. The great difficulty would be the transport;

* These oaks and other species in the Himalaya, have since been determined, and named by botanists, especially by Dr. Wallich and Prof. Royle. The three kinds mentioned in the text have been denominated *Quercus dealbata*, *Q. elastica*, *and Q. semicarpifolia*.—Ed.

but I apprehend, that at the season when the mountain rivers are at their height, and the vast blocks of stone which obstruct their beds at other seasons, are either washed away or completely covered, trees or rafts of timber might be floated down them with little risk of injury or loss. Certain it is that at Srinagar, the fishermen annually collect a considerable quantity of drift timber, and even entire trees. Some of the former I had an opportunity of examining, and found that it had sustained but very little damage.

There is a considerable variety of fruit-trees in the Himalaya, but in general, their produce is such as might be expected from their uncultivated condition, and they may be regarded chiefly as the stocks from which superior kinds may be successfully developed. The cherry-tree grows plentifully in the vicinity of Joshimath; the fruit is about the size of the wild cherry in England, and, like it, is only fit for ratafia. The apricot and pear grow at a still higher elevation, but their produce is indifferent. The pear is a native, of the same height, and its fruit small, speckled, and most abundant, is austere and

astringent beyond conception. The walnut and hazel are free bearers, and their fruit is well flavoured, although the shell is in large proportion to the kernel. The vine flourishes, and yields tolerably well-flavoured grapes. In Bisahar, they are made into raisins. The lime and lemon (gulgne) are grown to the south of Joshimath, and are equal to the best imported into England; at Srinagar, five dozen lemons were bought in the bazar for two anas and a half, (about fourpence,) and six of them taken indiscriminately from the basket, weighed two seers and three-quarters (above five lbs.). It is customary to pluck the fruit in the month of Kartiek, when it has attained its full growth but is not quite ripe. It is then buried in deep holes in the ground, lining the pits and covering the fruit with dry leaves. In this situation, it attains maturity, and if not bruised in packing, retains its form and freshness for a considerable period. I saw some disinterred after they had been buried for three months, and they were in most perfect preservation. The oranges which are found in the immediate neighbourhood of Joshimath, are bitter, and allied to the Seville variety; but the

loose-skinned kind which is raised below Srinagar, is good, although not equal to that grown within the hills near Butwal, which is little inferior to the orange of Malta. Currants and gooseberries were first met with, eight days' journey nearer the northern frontier than Joshimath. They were each of two kinds, yellow and red. The yellow, or orange-coloured currant, was small, with little flavour. The red variety, almost black when fully ripe, was as large, both singly and in its clusters, as the largest English currant. The skin was thin, and the seeds were small; the juice was abundant but acid. The bushes were ten or twelve feet high; luxuriant in leaf and wood, and abundantly laden with fruit. The gooseberry bushes were large, and every branch was set with long sharp prickles. The fruit was abundant but small, with a thick skin; large seeds, and scanty pulp. The barberries yield most profusely, and the fruit of the red variety equals that of England both in size and flavour. The red raspberry is smaller than the English fruit, but scarcely inferior in fragrance or taste. There are other varieties; as a light and dark yellow, but they are not

equal in flavour to the red. Pomegranates are plentiful and good; and their juice, as well as that of the barberry and lemon, boiled with the fragrant capsicum, to the consistence of syrup, is much used by the inhabitants as sauce. The fruit of the kaiphal, of the drupe kind, is deficient in pulp, but has an exceedingly agreeable mixture of sweet and acid, and would probably be improved by cultivation. Sugar-cane of excellent quality is raised in some parts of the hills, and the cultivation might, perhaps, be extended with advantage.

Madder grows wild in the vicinity of Joshimath, at the foot of almost every bush, and its black berries overspread their tops in the greatest profusion. The root contains abundant colouring matter, and it is used by the Bhotias to dye the coarse woollen cloths manufactured in the mountains, previously employing a bath of alum, which is found abundantly as an exudation on the face of some of the cliffs. It could be raised in any quantity.

Hemp grows freely in the valleys, and on the slopes of the mountains. It affords a

strong, fine, and long fibre, and is worked by the natives into a coarse canvas, and into thread and rope. The gum collected from its flowers during the warm part of the day, and called from its resemblance to wax, momia, and well known when adulterated, by the name of kshir ras, has strong narcotic powers. Tar, pitch, resin, turpentine, are all procurable in any quantity. The oil distilled from the turpentine extracted in the hills is lighter, more fluid, transparent and fragrant than any manufactured in Great Britain.

The neat cattle of the hills are not obtainable for food except by the violation of local prejudices; but the short-tailed sheep of Tartary, after it has been employed some years in carrying loads, furnishes, after fattening, a mutton rarely surpassed for fineness of fibre, juiciness, and flavour. The sheep may be procured in any number at a rupee a head. The goat-mutton is very indifferent. The mast of the oak and horse-chesnut support great numbers of wild hogs, which haunt the upper part of the hills until compelled by the snow to seek for food lower down.

They are then waylaid by the inhabitants, and when entangled in the snow-drifts, attacked and speared. The domestic poultry is small, but good if suitably prepared. Pheasants exist in considerable numbers and variety. The male of the mon al pheasant weighs usually above five pounds, and is a bird of most magnificent plumage. The chakor or Francoline partridge and black partridge are in great plenty; woodcocks are also met with. I have already alluded to the trout of the Alakananda, which, although in its general form, and the colour of its flesh it resembles trout, differs from it in many particulars, especially in the structure of its mouth, which is placed more backward, and it has no teeth in its lips; the nose projects farther; the lower lip is thick, leathery, and flat below, and convex above, and applies exactly to some moveable bones in the fore part of the palate, against which it squeezes its food. It has a single row of teeth in its throat, and two barbs on each side of the upper lip. The mode of catching it has also been adverted to, but I should think that anglers in England would find it an advan-

tage to substitute the line made from the fibres of the murwa for any tackle that they at present employ.

There are many other topics connected with commerce and manufacture in these mountains which might be worth inquiry; but there is little prospect of any such inquiry being judiciously directed, or any actual improvements effected until European skill and enterprise be domesticated in the Himalaya. Whenever that shall be the case, the capabilities of these provinces will, I am confident, be found far to exceed the most favourable estimate that has yet been made of them, and they will become a source of strength and revenue to British India, and of no mean advantage to the manufactures and commerce of Great Britain.

CHAPTER III.

Defile of Alexander—The King's Camp—Confluence of the Sir and Lag—Mahal—View of Kamla-gerh—Nadaun—The Byas River—Visit to Jwálá-mukhí—Temple of the Goddess—Inflammable Gas—Saline Springs—Return to Nadaun; its Decay—Resumption of Route—Rajpura—Temporary Detention—Descent to the Plains—Detention at Hoshyarpur—Mir Izzet Ullah dispatched to Amritsar—Permission from Ranjit Sinh to proceed—Advance to the Panjab—Jelalabad—Bhyroval—Amritsar—Arrival at Lahore—Shahlimar—Baraderi—Visit from Aziz ad Din—Audience of Ranjit Sinh—The Raja's Horses—Other Interviews with the Raja—His Familiarity—Anecdotes of Himself—Audience of Leave—Permission to go to Bokhara, by way of Kulu, or Kashmir—Account of Lahore.

At about two kos and a half from Dhansi, the road leaves the valley of Sukhet, and a flight of stone steps leads up a steep bank into the district of Mundi. After passing over some cultivated eminences, it descends to the Dagi rivulet, and then again ascends the eastern face of Sekander Ghat or the defile of Alexander. Villages were numerous, and the land was admirably cultivated, being laid out in terraces, rising nearly to the

summits of the hills. My curiosity being excited by the name of Alexander, I took particular pains to inquire if any traces or traditions of the Macedonian monarch were to be discovered, but could only learn that the name, with or without the adjunct of badshah or king, was familiar to the people of the country. I was told also that at Leda was to be seen what was called the badshah's camp, and on my arrival at that place I climbed a height about a mile above our tents, where a cut through a ridge of rock formed a portion of the ditch. On the summit was an open space of about an acre, or rather more, surrounded by a low wall of rough stones, and beneath this was a ditch cut in the rock, extending round three sides, the fourth being the edge of a precipice. Here and there were the ruins of small dwellings. The whole was evidently the remains of a fortified camp, but I found nothing to indicate a Grecian origin. Some foresters, indeed, informed me that although there was a tradition of its having been a station of the Badshah's army, yet that within their recollection it had been a fort belonging to

Mundi, and had been taken and dismantled by the Raja of Kotoch.

I did not reach the western extremity of the pass until the following day: on the right hand, upon a circular eminence, formerly stood a tower, and opposite to its remains was a heap of chiselled stones, on one of which a couple of feet and a trident were rudely sculptured, showing these relics to be Hindu. The summit of the hill commanded a beautiful view of portions of the territories of Mundi, Kahalur, and Kotoch, watered by the rivers Sir and Lag, and shut in on the north by the Chamba mountains tipped with snow. Below the hill on the right was the fort of Byrkoth, and higher and more to the east that of Sidhkoth, both belonging to Mundi. From hence the road descended rapidly, and led through a pine forest to the small village of Hatli, where we halted. In the evening the village poured out its sick and infirm, and formidable indeed was the quantity of disease met with in so apparently scanty a population. Besides lame and blind there were many affected with leprosy, ophthalmia, cataract, bronchocele,

enlarged spleen, or asthma. Upon repeating my inquiries after Alexander, they brought me some old copper coins, said to have been found in the Ghat and its neighbourhood: the characters seemed to be Cufic.*

From Hatli the road, following a direction south and west, crosses the Bijauri, a feeder of the Sir. On the right was the village of Burdwara, at the end of the highly-cultivated valley of Túk, running east and west, and separated from that of Bathel, which crosses it at right angles, by the Kaltri rivulet. The Sir flows along the middle of the Bathel valley, and falls into the Setlej, about five kos below Bilaspur. It divides Mundi on the east from Kahalur and Kotoch. The two latter again are separated by the Lag, flowing obliquely into the Sir, and having the district of Mankoth in the angle between the streams. At the apex of the angle is another spot called the Badshah's

* These coins have not been found with Mr. Moorcroft's papers. They were not improbably specimens of that ancient coinage which has, within a very few years, been so extensively discovered in the Panjab, and which is considered of Indo-Greek and Indo-Scythian origin.—Ed.

camp, enclosed on three sides by a rude wall of pebble-stones, broken down in some places by the peasants having removed the stones for the divisions of their fields. No vestiges of antiquity, it is said, have been ever discovered here. The road, after ascending the Lag for about five miles, to near its source, diverges more to the south, and leads to the village of Mahal, on the right bank of the Kanwa rivulet, a feeder of the Byas. The Raj of Kotoch, which is subject to Sansar Chand, commences about two miles above the confluence of the Lag with the Sir.

The Kanwa, which we crossed, runs between banks of sandstone, lying between strata of earth and rounded pebbles, a disposition first noticed in the hills which lie between Mahal and the Lag. Mahal, the palace or station, is so named because a court for receiving rents was formerly held here. The road crosses the valley of Raipur, and passes between numerous villages. At Amirpur it proceeds up a flight of steps cut in the rock, and then through the Bazar. From a height, some way onwards from hence, I commanded a distinct view of the

range of strong-holds called Kamla-gerh, the farthest of which was about twenty-five kos distant. These are a chain of fortresses, partly of masonry, partly constructed out of the rock, surmounting a range of high and almost perpendicular mountains, which extend at right angles along the four sides of a valley of about four miles square. The extreme distance between the western and eastern forts is about twelve kos. These forts belong to the Raja of Mundi, and are considered impregnable. Sansar Chand, when in the height of his power, tried his strength against them, and failed, after suffering a severe loss. The people report that the place was captured by Alexander, and that it contains a marble throne which belonged to that conqueror, having an inscription in unknown characters. The Alexander or Sekander, who is the hero of this tale, seems, however, to have been Sekander Lodi of Delhi. The inhabitants of this fortified valley, it is said, are never suffered to leave it, nor are strangers ever admitted into it; and these prohibitions are easily enforced, as there is no access to the interior except at the north-east,

where stands the great gate called Nurpur, strongly situated, and as strongly fortified. It was on this point that Sansar Chand directed his principal but fruitless efforts. On every other side the rugged and precipitous ramparts which nature has reared, effectually prevent the approach of man. The accumulated treasures of the Rajas of Mundi are said to be here deposited.

From Samruya, where I had halted for the night, the road proceeded north-west by west. From an eminence, on which stands a temple dedicated to Devi, the valley of Nadaun lies full in sight, running south-east and north-west, and extending from Danta Siddhadhán to Belear, it is said forty kos. It varies in breadth from four to six kos. In some parts it is cultivated, but in others broken into ravines, and overspread with jangal. The southern flank is formed by the ridges of the Raj of Jaswal; the northern by those of Samruya and Moru, and it is separated from Belear by the Byas river. Beyond the Jaswal hills lies another valley of similar dimensions, reaching to the Setlej opposite to Nala-gerh. The Kanwa skirts

the northern range of mountains. The Raj of Jaswal was formerly independent, but it is now parcelled out amongst Sikh chiefs, and the Raja is a pensioner of Ranjit Sinh.

Having descended into the valley by a steep and rugged declivity, I advanced along the bed of the Kanwa, now about thirty feet broad, and mid-leg deep. The channel, however, is one hundred and fifty feet in breadth, and the water-mark eight feet. After following the river bed for some distance, with occasional deflexions, we crossed it, the road finally leaving it at the hamlet and garden of Fattehpur, belonging to the Raja's brother. The tract of country between this place and Nadaun is little cultivated.

On my way thither I was met by a servant of Sansar Chand, sent to invite me to his capital, or, in the event of my declining the invitation, to attend upon me whilst in the Raja's country. I deferred visiting his master until my return, and, hearing that Ranjit Sinh was at Multan, and not expected to be at Lahore for a fortnight, I determined to take the opportunity of paying a visit to Jwálá-mukhí.

From Nadaun a long flight of stone steps led to the left bank of the Byas river, just above the town. This stream, now called Beyah or Byas, is the Hyphasis of the ancients. Opposite to the town the bed is thrice the breadth of the Setlej at Bilaspur, but about a quarter of a mile higher up, where it may be said to enter the plains, it is not above a hundred feet broad. The left bank is of sandstone, lofty and abrupt; the right of mould, lower and shelving. The current had the rate of about five miles an hour. I crossed the river in a commodious ferry-boat, but deris, or inflated skins, are also used here, and are so cheap that one fit for use may be bought for a rupee.

Jwálá-mukhí is about five kos to the north-west of Nadaun*, and is situated upon an elevated nook immediately under the mountains of Changa. It is a place of great sanctity in the estimation of the Hindus, and pilgrims come hither from all parts of India.

* Hamilton (*Indian Gazetteer*, vol. i. p. 501) erroneously places Jwálá-mukhí close to Koth Kangra, and, indeed, identifies it with that place. Buchanan (*Account of Nepal*) gives a more correct but brief account of it on native authority.—Ed.

Its holiness is owing to the inflammable gas which issues from various apertures in a temple dedicated to Devi, the wife of Mahadeo, who, as identical with the mysterious fire, is also called Jwálá-mukhí, the goddess from whose mouth flame is exhaled *. The vents through which the ignited gas, that is always burning in the temple of Devi, issues, are several in a shallow trough excavated on the floor, one in the north-western angle, one in the wall on the northern face, and two others on the outside of the wall: there are also some in a well within a small detached building. Observing the water in this well apparently free from vapour, I applied a lighted wick to it, and the surface was immediately ignited, though but for a short period. The same test showed the exhalation of gas from several of the apertures which were seemingly

* From the Sanscrit Jwálá, flame, and mukha, mouth. According to a legend in Hindi, procured by Mr. M. on the spot, the flame proceeds from the fire which Sati, the bride of Siva, created at the sacrifice of her father Daksha, and in which she burnt herself in resentment of her father's contumelious treatment of her husband. After the parties were reconciled, Siva removed this fire, which threatened to consume the world, and buried it in the hollow of the mountain.—Ed.

quiescent. There was no smoke, and but little smell. The interior of the temple was, indeed, blackened by smoke, but this had been generated by the offerings of Devi's worshippers, who place butter, sugar, and incense near the flame from the apertures as burnt-offerings to the goddess. The attendant brahmans were very civil, and allowed me to make what experiments I pleased. When a flame proceeded from any aperture longer and brighter than usual, an exclamation of *Ai Jwálá* arose from the adoring multitude. The temple was about twenty feet square, not in any way remarkable for its architecture, except that the columns were without capitals, and were more massive than any I remember to have seen in Hindustan. The crowd that pressed round me out of curiosity, and the confined space, as well as the heat from the burning hydrogen, rendered the air in the interior of the temple so suffocatingly close, that I was compelled to leave it sooner than I had intended. The interior of the temple has been lately painted and embellished at the expense of the Raja of Hindur.

The town of Jwálá-mukhí is prettily situ-

ated, and commands a view of the valley of Belear from Nadaun to the mountains of Haripur-goli on the west, and of the heights of Jaswal and Changa, with the Byas flowing down the former. It is of no great extent, and, notwithstanding its sanctity, is dirty and neglected. The environs of the temple are exceedingly filthy, from dirty water and fragments of offerings scattered about, and the concourse of brahmans, mendicants, and cows, the latter being much in the best condition of the trio. Up the sides of the mountains to the west are many buildings for the accommodation of the pilgrims, who are lodged and fed for a day at the expense of the temple, the cost being defrayed from the rents of lands with which it is endowed for that purpose. Most of them are mere paupers, and beset the shops of the grain dealers and sweetmeat venders, almost the only description of shops which the place contains, for their daily dole. Since Sansar Chand's revenues have been diminished by the loss of so many of his estates, not only has his patronage of Jwálá-mukhí been, in a great degree, withdrawn, but he claims a share of the

actual receipts of the establishment. Whatever money is offered to the goddess is the Raja's, and the brahmans are held to be entitled only to the donations given to themselves, which they represent to be little enough, and wholly inadequate to the maintenance of several hundred persons. Their appearance was quite in harmony with their assertions. In the evening after my visit, an old brahman brought me a book in which the names of visitors were inscribed, and requested me to insert mine as that of the first European who had visited Jwálá-mukhí.

I had understood from native report that hot springs existed in the neighbourhood of Jwálá-mukhí, the use of which was extremely beneficial in bronchocele or enlarged neck, and I was much disappointed to learn that no such baths were known. I was shown, however, some stone basins under the road to the temple, which received the salt water of a concealed spring in the mountain, that was used for the cure of goître. This water is both drank and applied externally, and it is carried in earthen jars to other places. I had some of it brought to my tent, and boiled it

in iron caldrons procured from the confectioners. It had a slight smell of sulphuretted hydrogen, and after standing for some time was coated with a very thin pellicle of oily matter. A pint of the water left upon evaporation 287 grains* of a greyish coloured salt. When it had been suffered to stand for about three hours before boiling, it threw up a red scum which imparted a similar tint to the salt that was left by evaporation. This tint was removed when the salt was rapidly dried by heat in the iron caldron, but was permanent if the residuum was dried slowly in the air. This colour might perhaps have been derived from the red earth of the ill-baked pots in which the water had been brought. I had no means of determining the nature of the salt. It is customary in cases of goître to administer about half a pint of the water early in the morning whilst the patient is fasting, preceding the dose by half a dozen pepper-corns, and following it by brisk exercise for a short time. In three

* The Journal has 3 miskals and 1 masha, which is rather indeterminate. Estimating the miskal at a dram and a half, and the masha at 17 grains, the result is expressed in the text.—Ed.

weeks it is said the cure is effected in a recent case; but a further period is required in a complaint of longer standing. That the remedy does not always succeed, is admitted, but the failure is ascribed not so much to want of virtue in the medicine, as to want of faith in Jwálá-mukhí, to whose favour, and not to any inherent quality, the water owes its efficacy. The water is said to act sometimes, but not always, as an aperient, and to produce in persons in health a sense of heat and uneasiness if drank to the usual extent for a few days. The poor people in the neighbourhood, however, use it instead of salt with their food. As there is a considerable quantity of fossil salt in the hills of Mundi, from the sale of which the Raja derives part of his income, Sansar Chand thought the salt-springs of Jwálá-mukhí must owe their impregnation to some similar deposit in the Changa mountains whence they rise, the discovery of which would be advantageous to him: his search, however, has hitherto proved unavailing. If the reputation which these springs enjoy, and the great resort to them of diseased persons afford any evidence of their

powers, they would seem to be better entitled to confidence in the treatment of goître than borax, soda, or burnt sponge, which have been recommended for its cure. I had also heard that the waters of Jwálá-mukhí were highly serviceable in cases of cutaneous affection; but this character was not possessed by them on the spot, either in the pretensions or practice of the inhabitants. I have seldom seen itch and ringworm so widely prevalent.

On the 29th of March I returned to Nadaun. This place was formerly one of great resort, being the chief mart of a rich province, and the favourite resting-place of merchants travelling betwixt Kashmir and Hindustan *. It was proverbially famed for its comforts and attractions; and "Who that goes to Nadaun will come away again?" (Jaega Nadaun aega kaun) is a phrase current in the plains, bearing unequivocal testimony to its reputation. The duties on merchandise passing

* It should have been in the way of Forster's journey, but he was prevented from visiting it. "The common road to Jumbo from hence (Bilaspur) lay through Nadone, the principal town in the Kangra country, and through the district of Haripur; but these places being overrun by the Sicques, we were obliged to deviate from the usual track, and proceed to the westward."—Ed.

through it were farmed at 27,000 rupees a-year. The whole district now scarcely yields a fourth of that income. The principal article was shawl-goods, which, to avoid the danger of being plundered on the lower road, were conveyed through the states of the several mountain chiefs to Nahan and Dera, and thence to Najibabad or Saharanpur. The heavy duties exacted in each petty principality checked, but did not crush the trade; but as these duties did not purchase security, and the pillage of a whole caravan by one needy and unprincipled Raja was a contingency to which the merchants were nevertheless exposed, they were at last obliged to discontinue the transmission of their merchandise to the low country by this route. The principal persons engaged in the traffic were the Gosains of Jwálá-mukhí, the seniors of whom remained at the principal stations, whilst their pupils or chelas traversed the whole of Hindustan with the most valuable commodities. The confusion that prevailed for some years in the politics of the hill states, and the consequent impoverishment of their rulers, combined with other causes,

have almost annihilated this traffic, and thinned the community of the Gosains; and the few that reside at Jwálá-mukhí are contented to remain at home, subsisting in humble tranquillity upon the produce of those lands which they owe to the piety of former benefactors.

Nadaun also suffered severely from its occupation by the Gorkhas; and the insolence and tyranny of their soldiery, some of whom were always stationed here, drove away all the respectable part of the population. Since its restoration its former inhabitants have begun to return; but it still presents a melancholy contrast to its once prosperous condition. The bazar, which was formerly crowded by bustling traders, is now frequented only by a few fakirs and pilgrims; and of the shopkeepers I observed one-third asleep, a third playing at draughts, and the rest scantily and listlessly employed. The vicinity of the town abounds with mulberry-trees of every description; so that if the climate be not unfavourable, the silkworm may be bred here to any extent.

On the 31st I left Nadaun for Koloa, fol-

lowing the bed of the Byas on the left bank. Close to the town I crossed the nearly dry mouth of the Kuna *, and farther on that of the Masi, which runs parallel with the hills of Jaswal, and separates that district from Kotoch. The Byas, although now reduced to a breadth of less than 200 feet, must bear a considerable body of water in the rainy season, for the bed is here about a mile broad. The road, after running some way between the Jaswal hills and the river, nearly at an equal distance from each, ascended the former at a pass called Chula Ghat above the village of that name. The hills are bare, and little cultivated, although villages are frequent. That of Koloa, where I halted, is little else than a cluster of grain-sellers' shops in an angle of two glens. On the following day I proceeded towards Rajpura, crossing the Koloa Ghat, which separates the two districts. From this eminence the course of

* Moorcroft considers this to be the same with the Kanwa formerly met with, but there is great reason to conclude that it is a different stream, and that he was misled by the similarity of the name; for he formerly mentions (p. 68) that the road quitted the Kanwa after he had crossed it, and it must, therefore, have turned to the right. Baron Hügel followed the same route to Nadaun, and makes the Kanwa join the Byas north of that town.—Ed.

the Rajpura river may be traced along the mountains to the village of Amb, where it enters Jaswal. Skirting the Rajpura hills, it takes an easterly direction to the Soaon river, which falls into the Setlej some way above Palasi. The road, with occasional deviations, lies in the bed of the rivulet until it reaches Rajpura.

Rajpura formerly belonged to the Raja of Jaswal, but was taken by Ranjit Sinh, and was now occupied by a Sikh detachment. The commander thought fit to detain me, until orders could be obtained from his superior, Dewan Magar Mal, who was at a village about two kos distant; and in the mean time, I was surrounded by a body of men miserably equipped with swords and bows and arrows, and pistols of an antique fashion. My detention was not of long duration, and a civil message from the Dewan authorized my liberation, and gave the requisite permission to proceed. After entering the great valley of Jaswal, along with the Rajpura stream, the road leaves it on the left, and pursues a westerly course, over a sandy and stony plain, covered in patches with tufts of coarse grass,

amidst which were numerous herds of cattle, buffaloes, sheep, and goats. I observed also some brood mares in excellent condition. The Soaon river runs along the centre of the valley. Leaving the valley, I came to Tittira, where I found two persons dispatched by Magar Mal, to provide accommodations and supplies for my party. At the distance of a kos, is a pass leading from the Tittira glen to a piece of table-land commanding an extensive prospect. The descent is by a path cut in the soft sandstone, the steps of which are sometimes of an ordinary man's height. As the road advances towards the west, the hills decrease rapidly in elevation; and at the village of Munhkala the plain commences, bounded for some short way, only by small elevations on the right and left. Our path thence led to the west, passing by the walled town of Bahadarpur to Hoshyarpur, where I encamped. On this day's route, I observed a line of sisu, pipal, and other trees, about a foot long, projecting from a thin stratum of vegetable mould, underneath strata of sandstone, at least sixty feet in depth from the surface. The face of the cliff was perpendicular, so there was no

ledge on which the seeds could have fallen, and however difficult it may be to conceive such an occurrence, the only probable theory to account for the growth of the plants in such a position, is to suppose that the seeds existed in the mould when it first assumed its present situation, and sprang into life upon exposure to air and light, by the partial breaking down of the cliff. At Munhkala, the rivulet of the same name which had accompanied us through the descent from Tittira, is absorbed during the dry weather by its broad bed of white sand; similar beds, however, indicate its continuous course at other seasons, south-west across the plain.

The thannadar of Hoshyarpur refused to allow of our advance without a reference to Lala Seodayál, who was at Phúl, thirty kos distant, and we were obliged to await the result; after staying three days, an answer came from this person, stating that he could not permit us to proceed without orders from Ranjit Sinh, to whom he would write, and desired me to do the same. As this did not meet my views I declined compliance with it, and instead dispatched Mir Izzet Ullah to

Lala Seodayál, with a written statement of my objects and intentions. This mission was fruitless. Seodayál persisted in detaining us, without authority from the court, and the only arrangement to which he would consent was the dispatch of Mir Izzet Ullah to Amritsar, whilst I remained where I was. These difficulties seem to arise principally from the absurd reports to which our journey has given birth; representing us as a strong military force which had taken possession of Mundi and Jwálá-mukhí, and was about to bring the whole of the hill districts under the British power. It had also happened that the Sikh arms had recently sustained some signal reverses. The tribe of Pathans, called Kather, inhabiting the mountains between Kashmir, Atak, and Peshawer, had risen in rebellion; defeated the troops sent against them; captured the fortress of Derbend, and slain Ramdayal Sinh, the elder brother of Seodayál, and governor of the country between the Indus and Byas, under his father, Moti Ram, the Dewan of Kashmir. These events had created much alarm amongst the Sikh chiefs on our route, and aggravated the suspicions they en-

tertained of our strength and designs. We arrived at Hoshyarpur on the 4th of March, and it was not until the 20th of April that I received news of Mir Izzet Ullah's proceedings. He had had an audience of Desa Sinh, the governor of Amritsar, who promised to send a confidential person with orders to Seodayál to oppose no impediment to my journey.

Hoshyarpur is a large and populous town, surrounded by a brick wall, separated from another town, Bahadarpur, by a few fields only; the latter, however, is nearly uninhabited. The population of Hoshyarpur consists chiefly of weavers, dyers, confectioners, grainsellers, and turners in wood. The weavers are almost all Mohammedans, and are an orderly and industrious set of people. They are employed extensively in the manufacture of cotton cloths and muslins, which are sent to distant markets in various directions; as, white cloths to Delhi; white and red to Jaypur and Bikaner; coarse cottons to the Panjab and Kabul, and the finer sorts to Herat, Balkh, Bokhara, and Yarkand. The water of Hoshyarpur is said to be of great efficacy

in whitening cloths The cotton is raised abundantly at the foot of the neighbouring mountains, and commonly sells at from 16 to 20 sers for a Mahmud Shahi rupee.

Upon my first arrival at Hoshyarpur I pitched my tent under some tamarind-trees in a Mohammedan burying ground, but the Thannadar, Dilbagh Sinh, insisted upon my removing to a house in the town which was used as a hospice for Hindu mendicants. It was situated on the edge of a dry, sandy water-course, which was a receptacle for filth, and the stench was exceedingly offensive. I remonstrated against the change, but in vain, and was obliged to take up my residence on a terrace of this mansion, over which I raised a small tent. The heat during the day was intense, but the night was commonly refreshed by a thunder-storm. I preserved my health, however, by rigid abstemiousness, abstaining wholly from animal food, and allowing myself a dinner once only in three days; on the others I lived upon breakfast, sherbet, and tea. During the whole of my stay I devoted a considerable portion of my time to surgical practice, and

was in no want of patients. The prevailing complaints were affections of the eyes, and I operated upon forty cases of cataract with very fair success. The operation is not unknown to native practitioners, and many of the barber-surgeons here are in the habit of couching. Their instruments are, however, clumsy, and their process rude, and success is very disproportionate to failure. I prevailed upon one of them to assist me in my cases, and left him conversant with the European method, and provided with a set of our instruments.

On the 25th of April Ghous Khan arrived from Desa Sinh, and informed me he was directed to pay every attention to my wishes until arrangements for my progress to Amritsar could be effected. On the following day he returned with Dilbagh Sinh and some other persons, and intimated his wish to inspect my packages, which were immediately shown him. I objected to their opening a box of presents intended for Ranjit Sinh, but a Sikh, who had been impertinently officious more than once, said that he had heard that Europeans had boxes which, when opened,

discharged balls and killed those who stood near them, and intimated a suspicion that the box in question was designed for the Raja's destruction. It was, therefore, submitted to the inspection of the party, and dissipated these idle and absurd apprehensions.

There was still an evident indisposition to facilitate my departure, and it was even intimated to me that it would be preferable for me to return. Dilbagh Sinh then wished me to sign a paper expressive of my satisfaction with the treatment I had experienced from him, but this I refused to do, although I assured Ghous Khan that it was not my intention to make any complaint. At length, on the 29th, came letters from Desa Sinh, announcing the consent of Ranjit Sinh to my route back through the mountains or to Amritsar, as I should think best, and his commands that, in either case, I should be well taken care of. In the event of my travelling to Amritsar an escort of fifty men was placed at my disposal, and, accordingly, on the evening of the same day, I set out in that direction.

The country through which I travelled was

dry and sandy, with crops of tobacco, sugar-cane, and wheat. On the 30th I halted in a burial-ground outside of the town of Halalpur, to which, in the course of the day, a number of persons resorted to drink infusions of poppy heads and hemp. Some seemed exhilarated, and some stupified by the potion, but none were particularly talkative, or noisy, or riotous. In the night a townsman of Hoshyarpur arrived at my tent, charging four soldiers of my escort with having stopped and robbed him of property of some value. It was, however, evident that he had mistaken the persons, and that none of our party could have committed the theft. He was obliged to return, therefore, without redress. On the following day as we passed through the bazar of Kytapur we saw four Sikh horsemen whose appearance answered the description which the unfortunate silversmith (for such was his avocation) had given.

On the 2nd of May we started at half-past two in the morning, for the sun now became intensely fierce as the day advanced, and exposure to it on the preceding day had given me a severe headache. Our route for several

miles ran across a plain to the left bank of the Byas, which we followed for some distance to the town of Gangrawal; there we took boat and dropped down to Byrawal, about three kos below, passing by Jelalabad, in which were the largest buildings I have seen in any town in the Panjab. It was formerly the capital of Adina Beg, when appointed by the Mahrattas, viceroy of Multan and Lahore. With their aid he kept for awhile the Abdali, Ahmed Shah, at bay, and it was not until after his death that the Afghan entered Hindustan for the last time, and, in alliance with the Mohammedan chiefs of that country, defeated the Mahrattas at Panipat. Byrawal is a moderately sized walled town, belonging to Fateh Sinh Aluwála, who sent me a present of money and refreshments, which I civilly refused, on the plea that Ranjit Sinh had already supplied me with everything that was necessary. I also declined going into the fort, of which I afterwards repented, as my tent did not come up, and I had to sit under a tree all day, exposed to a scorchingly hot wind.

We started on the 3rd at the same hour.

Miri Mal, Munshi, joined me at Byrawal, and stated he had the Raja's orders to attend upon me. In the evening Kuteb ad din Khan, with an escort of eighty horsemen, met me at Jindiala, and a Munshi came from the brother of the Hakim, Aziz ad din, to inform me that a tent was pitched for me in the garden of Karam Sinh. I set out from Jindiala on the following morning at three, and when I arrived at Amritsar at seven, found, as announced, a tent prepared for me in a garden of some extent, inclosed by a brick wall. In the evening the Killadar of Govind gerh, Imam ad din, with a couple of respectable looking Sikhs, paid me a visit. The Killadar brought me a present of some gold mohurs from Desa Sinh, and an apology for not coming himself, as he was on the eve of setting out for Láhore. I refused the money, except two hundred and seventeen rupees, which were offered in the name of the Raja, and those I could not, with propriety, reject. Nothing could exceed, at least in expressions, the kindness of the Killadar.

On the 5th I marched from Amritsar to Baniawal, through a flat country covered

with low bushes, and little cultivated. At this place were stables containing one hundred and forty brood mares belonging to the Raja. With a few exceptions they were poor and dirty, and the stud was both expensive and unproductive.

May 6. I started at three, and at nine reached Shahlimar, the large garden laid out by order of Shah Jehan, where I took up my abode in a chamber erected by the Raja close to a well, and a reservoir which it supplies, and from which *jets d'eau* are made to play so near to the apartment as to cool the air at its entrance. Ranjit Sinh has, to a considerable extent, put the garden in repair. It is said to contain a hundred bigahs, the whole inclosed by a wall, in the course of which are several buildings. The grounds are intersected by canals, and the walks are formed of bricks laid edgeways. In the middle of the garden is a large square basin for holding water, furnished with copper tubes for fountains, and a white marble slope carved into a surface of leaves and shells, divided into compartments by lines of black marble. There are some open apartments of

white marble of one story on a level with the basin, which present in front a square marble chamber with recesses on its sides for lamps, before which water may be made to fall in sheets from a ledge surrounding the room at top, whilst streams of water spout up through holes in the floor. This is called Sáwanbhadon, as imitative of the alternation of light and darkness with clouds and heavy showers in the season of the rains. The ground is laid out in platforms, and is covered with fruit trees. The water for its supply is brought by an aqueduct from Shahjehanpur, a distance of eighty kos. The gateways are lined with enamelled porcelain, and are in very tolerable repair. In the centre is a building of about one hundred feet long, consisting of three lines of arched apartments separated by the pillars from which the arches spring; the roof is painted in *fresco* with flowers. Scattered about the garden, sometimes even in the walks, are fragments of marble sculpture and beautiful mosaic taken from some splendid baths built by the Mohammedan ruler, and suffered by the Sikh prince to fall into decay.

On the day after my arrival, the brother of Hakim Aziz ad din came to conduct me to the Baraderi, another garden nearer the fort, in which was a small building of three stories. The middle apartment was principally of wood with panels of open work, divided by small compartments of flowers, birds, and human figures, the whole painted with great care and highly varnished. The cornice was wrought in ornaments that looked like scrolls of *lapis lazuli* on a gold ground, and the ceiling was a mosaic of flower-work embossed, interspersed with small mirrors, and divided by gilt lattices. The effect was, altogether, light and pleasing. A fountain played on one side of an open verandah that surrounded the apartment; the terraced roof inclosed by a latticed screen, served the purpose of a sleeping-room in the hot weather. In the course of the day Ranjit Sinh sent me sweetmeats and money, the latter of which I begged permission thankfully to decline. A reference was made to the Raja, who ordered me to keep what had been sent, but left me at liberty in future to accept or not, as I pleased, of such donations. In the evening

came Hakim Aziz ad din, the wazir of Ranjit Sinh, and engaged in conversation with me for some time. He is a man of about thirty-five years of age, and of remarkably pleasing manners. He was originally a barber-surgeon, and was attached to Ranjit Sinh in that capacity when Mr. Metcalfe came to Lahore with propositions from the British government so unpalatable to the Sikh prince that he meditated an appeal to the sword. All his courtiers and counsellors supported him in this determination except the Hakim and another individual, named Purupteal, who strenuously dissuaded him from collision with the British power. The Raja, after some hesitation, recognized the wisdom of their advice, and ever afterwards gave these two persons his fullest confidence. Purupteal died, but Aziz ad din was made prime minister, in addition to his charge of physician. To his next brother, Nur ad din, was intrusted the command of Lahore and the superintendence of the artillery; and a third brother, Imam ad din, is the commandant of Govindgerh, a strong fortress constructed by Ranjit in the vicinity of

Amritsar. The three brothers are men of extreme urbanity and of remarkable intelligence.

On the evening of the 8th of May the Hakim came to conduct me to the presence of Ranjit Sinh. Having passed through one of the western gates of the fort, we crossed the garden, in which stands the Jama Masjid, or principal mosque. Thence a long flight of brick steps led to a second gateway and court, crossing which we came to a third gate that opened into a more spacious inclosure, in which stood a number of horses caparisoned. From this we entered a large court flagged with marble, and on the side opposite the entrance was an open apartment, in which the Maharaja was seated. Upon my approach he partly rose from his chair, which was of gold, and pointed to another, of silver, opposite to him, for me to sit down upon. His courtiers sat upon the carpet on either side, forming a lane from his chair to mine. The gateways were well guarded, but here were only two matchlockmen, sitting one on either hand of the Raja. After the ordinary inquiries I expressed my

thanks to him for the attentions I had received since entering his territories, and requested leave to offer the few trifles I had brought for his acceptance. These were a pair of double-barrelled, and a pair of three-barrelled pistols, a sword, and the model of a cannon, with carriage and all appurtenances complete. This miniature piece of ordnance was made by Mr. Donnithorne, the mint master at Farokhabad, and was of singularly beautiful execution. To these I added some white chowri tails and bags of musk from the mountains. Ranjit was much pleased with the pistols, and still more with the cannon. Entering upon the main purpose of my travels, that of procuring horses, he ordered some of his to be exhibited, and about fifty were passed in review. They had all rich bridles, saddles, and housings, and were of the breeds of Dhani and Ghep, forest districts in the Panjab, the Lákhi Jangal, Rohtas, Atak, Kabul, and Bokhara. One which had cost 1700 rupees at Bokhara was beautifully made except in the legs below the knees and hocks, where he was too slight. For a grey Persian horse the Raja told me

he had given 7000 rupees (700*l.*), but it struck me as inferior to most of those exhibited. After the horses had been fully inspected I took my leave.

Early on the following morning the Hakim came and took me to Ranjit, who wished me to see his horses exercised. I found him in a neighbouring garden seated on a chair under an awning without any guards, his courtiers sitting round him on carpets. When I was seated, fifty horses, different from those I had before seen, were brought forward. The space on which they were exercised was a garden-walk twelve feet broad. The rider (for one only was employed) mounted each horse in succession, and sometimes walked a few paces; but in general urged him at once into a short and high gallop, in which the fore action was very high, the hind low and quick. This was continued with great rapidity for a few yards, when the horse was suddenly turned on his haunches, and the same movements were repeated, or they were sometimes broken by rapid side movements in most perfect obedience to the action of the body and the hand. Not a single horse

neighed, or was restive or vicious in the slightest degree, or was uneasy at mounting, or diverged from the path, although the Raja affirmed that they had not been ridden for some time past.

On the 10th I was present upon the Raja's invitation at the parade of two regiments which he had formed on the model of the Company's sipahis. The men were Sikhs, Hindustanis, and Gorkhas: the first were in general tall well-looking men; the second were of a mixed appearance; the last generally short but muscular. The Raja beheld their evolutions from the top of a low building at the palace, where I joined him. He seemed to take great interest in his regular battalions, but they are not popular amongst his officers. Desa Sinh told Izzet Ullah that all Ranjit's conquests had been won by the sword, and he had never known the infantry and artillery of any service. The Raja told me that these regiments had been first trained by a Naik, who had deserted from the Company's service. He was very communicative. After the review he showed me some more of his horses, chiefly from Bokhara; and then

consulted me on the state of his health, complaining much that he could not bear such strong potations as he had been used to do formerly; he told me also that he had once sent an account of his ailments to General Ochterlony, that a European surgeon might prescribe for him, and that he had in consequence received some medicines, but had never taken any of them. These were afterwards sent to me, and finding one of them to be elixir of vitriol, I mixed a few drops with water, and drank it in the presence of the Hakim, in order to remove any suspicion that might lurk in a mind so constituted as that of Ranjit appears to be. After I left him I received a message that I was at liberty to visit any part of Lahore, whenever and in what way I pleased, and desiring me to name what breed of horse I preferred, that the Raja might give me one. I returned due thanks for the Raja's kindness, but declined accepting the horse, at least until I should return from Bokhara.

During the other days of my stay at Lahore, I had several interviews with the Raja, in all of which he conversed with the appa-

rent absence of all reserve upon a variety of topics. One of his favourite themes was his stud. He told me that most of his horses were presents from his tributaries and zamindars, and that he not unfrequently requited the donor of a superior animal with a village or a jaghir; no wonder, therefore, that he obtained capital horses for his own use. He is not singular, however, in his passion. Every Sikh in the country keeps a horse and a brood mare, and rears colts for his own riding or for sale. The Raja monopolizes the best; for in the party which escorted me from Jindiala there was only one good horse. Ranjit proposed to me, through Mir Izzet Ullah, to purchase some horses for him at Bokhara, and I readily assented; but there was some difficulty as to the model, and the matter ended by my stating, that if he would be contented with but one, he should select it from the string I hoped to bring down.

The Raja consulted me also confidentially, regarding his health, which appeared to me to have suffered chiefly from intemperance and excess. On my departure I left a paper of remarks and instructions, which I heard

was canvassed by a conclave of native doctors, and was honoured with their concurrence. In all probability it was but little attended to by Ranjit in practice.

Ranjit conversed also freely upon his military arrangements, and upon his past exploits. He told me that he lost 1900 men in a few hours, in an attempt to carry the city of Multan by escalade, owing to its having been made whilst he was absent. The gates had been blown open, but strong mounds of earth had been reared behind them. The garrison amounted to 3000 men, the besiegers to 25,000; but the former were all Pathans, and "fought with one hand." In answer to the question I put, how many survived the capture of the fort, he said 500, on which Himmel Sinh, a favourite courtier, guessing the drift of my inquiry, which was to ascertain the truth of the report that they had all been put to death immediately, remarked that not a man was killed after the fort surrendered. Speaking of the wealth of the city, the Raja said it was estimated at four crores, on which Himmel Sinh observed that the Sikh officers did not attempt to restrain the soldiers from

plunder, on account of the opposition that had been offered, and the loss sustained; and the Raja stated that very little of the booty had come to his share. Neither the Raja nor Himmel Sinh mentioned the severe captivity to which the gallant but unfortunate Nawab Sirafraz Khan* is now subjected at Lahore.

Early on the morning of the 13th I had my audience of leave. The Maharaja was peculiarly communicative and familiar. He told me that when Lord Lake entered the Panjab in pursuit of Holkar, he felt a strong desire to see the European general and his officers. His courtiers endeavoured to dissuade him, affirming that the very sight would be unlucky; but he was determined to gratify himself, and for that purpose disguised himself as a common trooper, and accompanied by a party of his soldiers, repaired to the British camp. They went to Mr. Metcalfe's tent, and sent word that some Sikhs had come out of curiosity to see the Sahibs, and

* The Nawab Mozaffer Khan was killed in the storm with two of his sons. Sirafraz Khan was a third son. Although the troops plundered the city, they were compelled to relinquish their booty to the Raja, and the most valuable part came to the public treasury.—*Prinsep's Life of Ranjit Sinh.* Ed.

begged he would indulge them. He immediately complied with their desire, but soon distinguished Ranjit Sinh amongst his visitors. After many assurances of kindness towards me, and of friendship for the Company, he dismissed me with an honorary dress of valuable shawls, and similar distinctions of less value to Mir Izzet Ullah, and his son and brother.

I had submitted to Ranjit Sinh a proposal to establish a fixed scale of duties for the admission of British merchandise into his territories, but he postponed the consideration of the arrangement until the return of his principal officers from the campaign in which they were now engaged, as he said he wished first to consult them upon the subject. This, however, I consider as an adjournment *sine die*. He readily consented to my proceeding through Mundi and Kulu to Ladakh, and in case of my being unable to reach Bokhara from Upper Tibet, I had his authority to pass through Kashmir with two hundred followers. He appointed Miri Mal to attend me to Kulu, and furnished me with written orders to his officers to afford every facility to my journey.

In the evening Nur ad din, the Governor, came to conduct me through the city. Lahore is surrounded by a brick wall about thirty feet high, which extends for about seven miles, and is continuous with the Fort. The latter, in which the Raja resides, is surrounded by a wall of no great strength, with loop-holes for musketry; a branch of the Ravi washes the foot of its northern face, but it has no moat on either of the remaining sides. The palace within this inclosure, called the Saman Burj, which is of many stories, is entirely faced with a kind of porcelain enamel, on which processions and combats of men and animals are depictured. Many of these are as perfect as when first placed in the wall. Several of the old buildings are in ruins, others are entire, and throw into shade the meaner structures of more recent date. Ranjit Sinh has cleared away some of the rubbish, and has repaired or refitted some of the ruined buildings of Jehangir and Shah-jehan; but his alterations have not always been made with good feeling or taste. The great square and buildings of the principal mosque have been converted into a

place of exercise for his Sipahi infantry, and he has stripped the dome of the mausoleum of Asof Jah, the brother of Nurjehan Begam, of its white marbles, to apply them to the erection of some insignificant apartments in the garden-court of the Mosque. The Diwan Am, or general hall of audience, is a long apartment supported by many pillars. The Diwan Khas, or private audience-hall, is a suite of small chambers offering nothing remarkable.

Lahore is said to have been twelve kos in circumference, and however this may have been, it is clear, from the ruins of buildings beyond the walls, that it was once much more extensive than it is at present. Such of it as still remains within the walls is apparently very populous. The streets were crowded to an extent beyond anything I have ever witnessed in an Indian city. The houses were in general of brick, and five stories high, but many were in a very crazy condition. The Bazar follows the direction of the city wall, and is not far distant from it. The street is narrow, and this inconvenience is aggravated by platforms in front of the shops, on

which the goods are displayed under projecting pent-houses of straw to protect them from the sun and rain. Through the centre of the remaining contracted space runs a deep and dirty drain, the smell from which was very offensive. The population consists of Mohammedans, Hindus, and Sikhs, the former in the greatest number. I saw no building of any size or magnificence, except the mosque of the Nawab Wazir Khan. The wall of the city was still under repair, and 3000 men were said to be at work upon it and upon the moat which the Raja was about to add to the defences. The place, however, could oppose no effectual resistance to European assailants.

CHAPTER IV.

Shahdehra—Tomb of Jehangir Shah—Appa Sahib the ex-Raja of Nagpur—Phular Sinh Akâli—Manufacture of Shawls at Amritsar—Jindiala—Recall to Lahore—Indisposition of Ranjit Sinh—Second departure from Lahore—Stud of Fatteh Sinh Aluwala—Sikh religious Establishment—Cholera at Amb—Magar Mal the Collector of the Revenue—Assessment of Land—Robbery at Koloa—Thannadar of Rajpura—Dains or Witches—Sujanpur—Europeans in the Raja's employ—Raja Sansar Chand—His Family—His political Misfortunes—Gorkha Invasion—Blockade of Koth-Kangra—Its Cession to Ranjit Sinh—Paramount Authority of the Sikh—Detention of Mr. Trebeck and Party at Mundi—Reference to Ranjit—Dangerous Illness of the Raja's Brother—Native Treatment—His Recovery—Gratitude of the Family—Advance of the Party from Mundi—Mode of catching Quails—Departure from Sujanpur—Account of Kotoch and of its Raja—Frequency of Satis.

On the 15th of May I recommenced my journey towards the hills, accompanied by a Jamadar and Harkaras sent by the Raja to escort me to Shahdehra, a town on the left bank of the Ravi, about two kos from Lahore. The road is intersected by three different streams or branches of the Ravi, separated

in the dry weather by intervals of half a mile; but in the rainy season the two most easterly branches are united, and form an expansive and rapid stream. The water is always thick and muddy, and abounds with fish, which had been taken under the Raja's protection. In some moment of whim he had issued an order prohibiting fishermen to ply their trade upon the Ravi. The two first branches are fordable, but the third, which is the principal one, has a ferry. The boats are the largest and best built I have seen in India.

There is nothing worthy of note at Shahdehra except the tomb of Jehangir Shah. The structure, which is built of a reddish freestone, stands in the centre of a spacious quadrangle, to which entrance is given by a handsome gateway of marble and enamel. It is surrounded by a long corridor with cells for fakirs. The corridor is paved with variegated marbles, and the walls are decorated with paintings. In the interior of the mausoleum is an elevated sarcophagus of white marble, enshrining the remains of the sovereign of Delhi, the sides of which are wrought with flowers of mosaic in the same style of elegance as the

tombs in the Taj at Agra. The floor and walls of the chamber are of marble, and along the latter run passages of the Koran. The building was surmounted it is said by a dome, but it was taken off by Aurangzeb, that his grandfather's tomb might be exposed to the weather, as a mark of his reprobation of the loose notions and licentious practices of Jehanjir. Such is the story; but more probably the building was never completed. The roof is now square, presenting an open-work screen, with a lofty minaret at each angle. The edifice is of great extent, and of surpassing beauty.

On the 17th we halted in the suburbs of Amritsar, where I learned that the fugitive ex-Raja of Nagpur, Appa Sahib, was in honourable durance, nominally as the guest, but in reality as the prisoner of Ranjit Sinh. An attempt was made to involve me in an intrigue professing to have for its object the Raja's being delivered to the British, from whom he had made his escape; but I refused to have anything to do with the matter, referring a man who had volunteered the information to General Ochterlony. I had

also a message from Phular Sinh, the Akali, who on a former occasion attacked the English envoy, Mr. Metcalfe, but was beaten off, expressing his contrition for his former misconduct, his dissatisfaction with Ranjit Sinh, his determination to attach himself to the English, and his readiness to carry fire and sword wherever I should bid him. I declined the interview which he solicited, and recommended him to entertain more prudent and loyal purposes. Desa Sinh, the Governor, again sent an apology for not paying me a visit, having, in fact, been expressly forbidden, as he informed Izzet Ullah, by his master, to hold any personal intercourse with me. Desa Sinh had incurred, indeed, the displeasure and distrust of Ranjit some time before, in consequence of some interchange of civilities between him and the officer in charge of the hill frontier, Captain Ross.

At Amritsar shawls are largely manufactured, but they are of an inferior quality. The manufacture seems to have been introduced by Kashmir families, who, before the Sikh conquest of that province, fled to the

plains from the oppressive government of the Afghans. The yarn was formerly imported from Kashmir, but the Governor of that country has prohibited the export, at the request, he pretends, of the Kashmirian weavers, but, in reality, to discourage the foreign manufacture of shawls, the duty on which constitutes the chief source of his revenue. The yarn employed at Amritsar is therefore prepared there partly from the wool of Thibet, and partly from that of Bokhara. From the former a third of fine wool is usually obtained. The latter is of mixed colour and uncertain quality, and is, I suspect, adulterated with the down or fine wool of the yak. The Thibet wool, when picked, sells for six or eight Nanak Shahi rupees a ser. The latter from two to four.

The web yarn is employed double, as well as the weft, which latter is nearly four times as thick as the former. The twist of the thread is very loose, and this, I imagine, contributes essentially to the softness of the cloth.

Having experienced insurmountable difficulty in picking and cleaning a parcel of

shawl wool I brought down from Bhot, I took advantage of my stay at Amritsar to ascertain how these operations were to be best effected. A family of Kashmiris lodged in the gateway of my residence, and the wife picked and cleaned about two ounces of Thibetan wool in my presence. Of this quantity nearly half was fine, nearly half consisted of coarse hair, and the rest was dust and refuse. It was picked by hand in about two hours. Some rice which had been steeped in clean water for two days was then taken out and drained, and before it was quite dry was bruised and ground to flour, in a wooden dish with a stone. Into this the wool was thrown, and it was rubbed and kneaded with the hand until every part of it was impregnated with the rice, when it was taken out and separated. This process was repeated, and after the second opening and drying it was ready for spinning. The spinning-wheel was the coarse implement in common use. A woman could spin about a rupee's weight (about one hundred and seventy-five grains) of fine yarn in a day, and her husband could earn about two anas and a

half by weaving. The weavers are all miserably poor, and can scarcely procure subsistence. Many came to me and offered to accompany me wherever I pleased to take them.

Having remained at Amritsar, engaged in these and other inquiries, till the 23rd, I then moved to Jindiala, but I had no sooner arrived than messengers came from the Governor of Govindgerh with letters from Ranjit, stating that his son, Kharg Sinh, was seized with fever, and desiring me to send some medicine; reminding me, also, that I had promised to send the Raja some brandy from my stock at Mundi. Before I could prepare the medicines which I thought likely to be of use, two of the Raja's principal officers arrived with a letter, desiring me to return with all speed to Lahore. Although not very well pleased with this recall, nor wholly satisfied as to its motive, I had no choice but to express my readiness to comply. When I announced that I was prepared to depart, the Sirdars stated there was no need of immediate haste, as a subsequent express had been received, directing me, in

order to save me the trouble of unnecessarily returning, to wait a couple of days for further orders. With this I was also obliged to comply.

After waiting till the 29th, exposed in a small tent to the hot winds, a letter arrived, desiring me to leave my tent and people at Jindiala, and return to Lahore. The former part of these instructions I did not hold it prudent to comply with, for the state of the atmosphere indicated the approach of the rains, when it would be difficult to move with baggage across the mountains. I therefore ordered my servants to proceed to Mundi, and wrote to my young friend, Mr. Trebeck, to march with them and the merchandise and luggage to Kulu, as he would there be nearly beyond the range of the monsoon. I then set off for Lahore, and, travelling all night, reached Shahlimar at eleven on the 30th, from which the Raja's own palankeen and bearers conveyed me in the evening to a house in the city. The Hakim came to me shortly after my arrival, and from his report I found that Ranjit was really labouring under a sharp attack of in-

termittent fever, which had been treated with little else than diluent and aperient sherbets, and for the cure of which the most effectual remedy devised was the lavish distribution of money and food to a parcel of idle fakirs.

Public business prevented the Raja from seeing me before the morning of the 2nd of June. I visited him at six o'clock, and found him seated under an awning in the open air. Some of his courtiers were on one side, and on the other were ten or twelve grave-looking personages, who he said were his physicians. Several were advanced in years, some had books in their hands, and some were employed in running their fingers over a string of beads. Amongst them I recognized Rahim Ullah, the tutor of my friend, Izzet Ullah, an intelligent and liberal-minded physician. Ranjit represented himself as feeling better, but he looked unwell, and required a more active mode of proceeding. He described to me his feelings, and I gave him my advice. I took my leave at noon. In the evening I had a visit from Nur ad din, to whom I fully explained my views,

and the inconvenience to which any unnecessary delay exposed me, which he promised to represent to the Raja.

In the course of a few days the Raja's fever abated under the management of the native practitioners, and I was assured I should be allowed forthwith to resume my journey. I had been summoned to Lahore evidently in a fright by Ranjit Sinh, although he could not make up his mind to submit to my care, especially as the disease became less violent. Still, however, the fear of a relapse induced him to detain me within call, and it was only when he thought himself recovered that he consented to my departure. I set off on the evening of the 8th upon an elephant, and, after losing my way through the blundering of a harkara, arrived at Amritsar at two in the morning. I had been fifteen hours in a howdah, and felt more fatigue than I recollect to have experienced from any other mode of conveyance for a much longer interval. The sense of weariness and pain, and the extreme heat of the night, prevented my falling asleep. Whilst tossing about in a state little short of

delirium, and having no servants, I was no less surprised than refreshed by the movements of a fan which a stranger was waving over my head. It proved to be a poor Kashmir weaver to whom I had given medicine, by which he had benefited, and, observing my restlessness, he had thus testified his grateful recollection of my aid; this was of essential value, for I slept and woke refreshed. On making preparations to resume my route I found that no orders had been given for any escort, and there was no small risk of my being intercepted by my Akali friend. Kutteb ad din, however, took upon himself the responsibility of sending with me some of his horsemen, and, under their protection, I arrived safely at Bhyrawal, where I learnt that my servants and baggage had been detained at Hoshyarpur instead of advancing to Mundi.

A stormy night prevented my crossing the Byas until the morning of the 10th. I was desirous to visit the stud of Fatteh Sinh Aluwala, and, therefore, went something out of my direct route to the town of Kapurtala. I found about forty young horses and colts,

but understood that the mares were the property of the zemindars, none of whom can dispose of the colts they rear until they have first offered them to their chief. Should he approve of any he takes them at his own price, which is rarely more than a half or a third of their value.

At noon I reached Kartapur in an excessively hot day, and was hospitably received at the Dharmasálá of a set of Sikh fakirs termed Udasis*. An apartment was given me, the floor and walls of which had been deluged with water to cool them. One of the Udasis, an old man, entered into conversation with me. He inquired by what name we Englishmen designated the Being whom the Hindus term Ram and the Mohammedans Allah? When I had told him, he asked of what colour and form we represented God? To which I replied by asking him how it was possible to represent that Power who was everywhere present, and in whom all things existed, by any shape or colour? On which he expressed his satisfaction at finding that

* So denominated from their abandoning all hope of temporal advantage, even from their devotions.—Ed.

our notions were so conformable to the doctrines of the Sastras. In the evening the whole party engaged in prayer, in the course of which, after offering their good wishes for their ruler, the Sinh Sahib, they invoked the protection of the deity for the Firingi (European) Sahib and the other travellers then in their dwelling. I have seldom met with persons of more simple, unaffected, and pious manners than these Udasis.

After a hot march I arrived at Hoshyarpur on the following morning, and found that the people and baggage I had sent on from Jindiala under charge of Miri Mal, who had been deputed to attend me to Kulu, were one march in advance. I therefore procured a fresh supply of cattle, and moved on to Amb, where they were. Miri Mal's plea for the delay was the absence of Dilbagh Rai and Karm Rai, the two chief functionaries of Hoshyarpur, from that place, and consequent impossibility of procuring any conveyance. I was informed, however, that he had spent the interval at his own house, and had only moved when he heard of my quitting Lahore. The town of Amb was nearly deserted, the

people having fled to the neighbouring thickets in hope to escape from the cholera, which had lately been making great ravages amongst them. It was asserted that a preventive of the disease had been discovered in the expressed juice of the onion; persons who took it to the extent of the juice of five onions at a dose, which proved strongly cathartic, not having been attacked. Their desertion of their town, however, indicated but little trust in the antidote.

I was met here by two persons from Raja Sansar Chand, and by a nephew of Magar Mal, the collector of the district. On the following day the latter met me at Rajpura. He is a remarkable man, upwards of seventy, but active and intelligent; he is of fair complexion and athletic make. He was formerly the chief financial minister of Ranjit, but incurred his master's displeasure by a violent quarrel in his presence with a favourite courtier, and, as a mark of disgrace, was appointed to the collection of the revenues of this district, amounting, it is said, to 140,000 rupees a year. He had lately introduced a new principle of rating the annual

collections, which, without diminishing the amount, was likely to be satisfactory to the peasantry:—this was by a rough analysis of the soil. A given quantity of the earth was put into a fine muslin sieve, and washed with water until all the mould was carried through and nothing but the sand left, and, according to its proportion to the whole, a deduction was made from the assessment. Four rupees for two bigahs was the fixed rate for rich soil, three if it contained one-fourth of sand, two if it had a half, and one where the sand was three-fourths of the quantity. The general character of the soil of the Panjab, composed chiefly of mould and sand, renders this mode of appreciating its assessment more correct than might be supposed, and it was, at any rate, preferable to the old plan of assessing the land according to the estimated out-turn of the standing crops. The persons appointed to form this estimate made use of their power to oppress the cultivators, and to levy from them heavy exactions, in which the zemindars not unfrequently were sharers, defrauding the state without benefit to the peasantry. After our interview I moved on to Koloa, where I halted.

Before day-break on the 14th a servant came to me to report that a bag of money had been stolen from the tent of Izzet Ullah. Miri Mal sent word of the circumstance to the Thannadar of Rajpura, but he refused to interfere, saying it did not concern him. Several of the people of the place now came forward and declared that many robberies had been committed of late in this quarter, of which the Thannadar had not taken cognizance, and which could scarcely have been committed with impunity without his connivance. The same man had lately been implicated in an attempt to murder the collector, Magar Mal, but had hitherto remained at large from want of sufficient proof. A zemindar, who had refused to pay the money due upon his estate, had been seized by Magar Mal and put in confinement. His friends bribed the Thannadar, Radhan Sinh, and his assistant, Raju Sinh, to assist in liberating the prisoner and killing the collector. Magar Mal resided in a small fort called Basantpur, about two kos from Rajpura. Radhan Sinh corrupted some of his followers, and a night was appointed for their giving admittance to a hostile party

into the fort. When the time arrived the conspirators of the garrison demanded payment of the stipulated reward before proceeding to action, with which the friends of the prisoner hesitated to comply. Several messages passed between the parties, and the repeated opening and shutting of the gate at an unusual hour at last awoke Magar Mal, who had retired to rest. On inquiring the cause, he was informed some of the garrison had been suddenly taken ill; but, his suspicions being awakened, he rose, and going to the window of his chamber, found a ladder placed against it. Throwing this down, he alarmed the garrison, and the plot was discovered. Miri Mal wrote to Ranjit Sinh an account of the robbery, and expressed his conviction that Ranjit will replace the money; but the theft, combined with the circumstances of neglect, delay, and obstruction which have taken place since I left Lahore, seems to me to have been authorisedly perpetrated, and to be part of a scheme intended to frustrate my journey, even whilst acquiescence in its performance is pretended.

On the 15th I marched to Nadaun, where an uncle of Sansar Chand met us. Miri Mal and the Lahore news-writer entertained us with some marvellous tales of the power of the Daïns, or witches of the mountains; and, amongst others, one of a zemindar, who, having lost his son and a favourite cow, accused an old woman of the village of having destroyed them by magically "eating their livers." The poor woman, after a severe whipping, pleaded guilty, and accused a number of other women in the village of being witches also: her head was cut off: but when it was found that her supposed sisterhood comprised the wives of all the principal farmers, the Malik of the village contented himself with fining them 300 rupees. I suspect the Malik was no other than Miri Mal, for he said he was bewitched himself for three years afterwards by an ague, which was cured only upon his giving fifty rupees and a suit of clothes to the old woman whom he considered the cause of his malady. These credulous people tell me they will convince me of the real existence of witches both at Shujanpur and Mundi.

From Nadaun we crossed the mountains to Shujanpur, nine kos. A violent thunder-storm and hurricane on our march ushered in the rains. After it had ceased, and we had resumed our progress, I was met by a Mr. O'Brien, an Irishman, in the service of the Raja, who conducted me to a bangalo, where I found refreshments prepared for me. O'Brien, who is a strong, stout man about forty, was a dragoon in the 8th, or Royal Irish. It is said that having come on guard without some of his accoutrements, he was reprimanded by the officer, and on his replying insolently the latter touched or struck him with his cane. O'Brien knocked him down with the butt end of his carbine, and then set spurs to his horse and galloped off. Not daring to return to his regiment, he wandered about the country for some time, and at last found service with Sansar Chand, for whom he has established a manufactory of small-arms, and has disciplined an infantry corps of 1400 men. There is also an Englishman of the name of James in the Raja's service. He has been a soldier, though he denies his having ever been engaged in the

service of either King or Company in India. He is an illiterate, but an ingenious man, with some skill in practical gunnery. These men are of some service to the Raja, and might be of more, but their means are limited, and their habits not of the most regular or temperate description.

In the evening I waited upon the Raja at his desire, and found him with his son and grandson in an open building in a garden. Raja Sansar Chand is a tall, well-formed man, about sixty. His complexion is dark, but his features are fine and expressive. His son, Rai Anirudha Sinh, has a very handsome face and ruddy complexion, but is remarkably corpulent. He has two sons, one of twelve, the other of five years of age, both less fair than himself. Sansar Chand was formerly the most powerful Raja from the Setlej to the Indus. All the potentates from the former river to Kashmir were his tributaries or dependants, and he was extremely wealthy, possessing a revenue of thirty-five lacs of rupees. He is now poor, and in danger of being wholly subjected to Ranjit Sinh. His misfortunes are mainly owing to himself, and his

decline presents a remarkable contrast to the rise of his neighbour, and now paramount lord, Ranjit Sinh.

When Ahmed Shah Abdali invaded Hindustan for the last time, Gomand Chand, the grandfather of Sansar Chand, was military governor of the Doab of Jalandhar, between the Setlej and the Byas. The Afghans conferred his government upon him in perpetuity, along with the royal fort of Kangra. To defend his possessions Gomand Chand raised a force of 4000 men, composed chiefly of Rohillas, Afghans, and Rajputs, drawn from the Delhi and Afghan forces, to whom he gave liberal pay, or five rupees a month for each footman, and twenty for each horseman.

Tegh Chand, the son of Gomand Chand, maintained the same kind of force, and even increased the pay. Sansar Chand, for some time after his accession, adopted the same policy, and was enabled thereby to extend his authority over the hill rajas, and repel an invasion of the Gorkhas. A treaty was concluded with the latter, by which the Setlej was established as a boundary which neither was to pass.

At this time Gholam Mohammed, the deposed Raja of Rampur, was living in the territories of Sansar Chand. Although finally defeated by the British at the battle of the Dojaura rivulet, yet he had gained an important advantage at first, and had nearly achieved a victory, and this circumstance had given him a high military reputation. Sansar Chand, therefore, readily deferred to his counsels, and was persuaded by him to break up his own force as needlessly expensive, and levy an army of Rohillas on cheaper terms: Gholam Mohammed engaging to raise them at four rupees a month for each foot soldier, and twelve for each horseman.

As soon as the Gorkhas heard of the dismissal of Sansar Chand's old troops, they broke their treaty, and repeated their invasion before his new levies had joined. Sansar Chand opposed them as well as he could, and Gholam Mohammed brought up his troops with very creditable expedition. Before they could join the Raja, however, the Gorkha general drew them on to an engagement, in which they were completely routed and dispersed. The Gorkhas then

occupied the country, and the Raja's only remaining hope was in the strength of the fortress of Koth Kangra.

The command of the place was intrusted to his son, whilst he stationed himself at Tíra to harass the enemy, and facilitate the supply of stores and provisions to the garrison. The fortress had been supplied with grain for twelve years, but great negligence and waste exhausted it in a much shorter period, and, the Gorkhas having prevailed on the Haripur Raja to forego his alliance with Sansar Chand and join them, the chief source whence the latter had derived provisions was cut off. The Raja had previously thrown himself into the fortress, and he and his garrison were without food, subsisting for four months upon little else than the leaves of vegetables. In this state of things, after the struggle had subsisted for more than four years, Sansar Chand was obliged to apply to Ranjit Sinh for assistance. The Sikh chief gave him effectual succour, and the Gorkhas were driven out of the country; but the Raja paid dearly for his liberation, being obliged to cede his fort of Koth Kangra to his ally,

and to acknowledge a sort of vassalage to him, as his liege lord. Ranjit has not exacted yet any tribute from him, but he claims military service, and put him foremost in his late attack upon the Kahalur Raja, whose forts were captured by the troops and artillery of Sansar Chand under James and O'Brien. Ranjit sends for Sansar Chand to his court once a year, and the latter expects on one of these occasions to be detained a prisoner; but the Sikh's purposes do not seem yet to be matured, and, satisfied that his prey is within his grasp, he forbears awhile to pounce upon it.

The loss of territory, and falling off of his dependencies, have so much reduced the revenues of Kotoch, that, as the Raja assured me, he has but 70,000 rupees a year for the expenses of himself and his family after paying his troops. His resources are, however, still respectable; his country is strong, his peasantry resolute and warmly attached to him, and he has a large property in jewels, which might be turned to better account. His pride, however, prevents his making the sacrifices necessary to the improvement of

his means, and, whilst he spends large sums upon a numerous zenana and a parcel of hungry retainers, he allows the defences of the country to fall into ruin, and keeps his soldiers short of powder and ball. He is very anxious to be taken under the protection of the British government, and in the event of a rupture with the Sikhs, it would find in him a zealous and useful partisan.*

On the 20th and 22nd letters arrived from Mr. Trebeck, stating that Mohan Sinh, the Sikh governor of Koth Kangra, had been at Mundi, and, after stationing guards round our encampment, had refused to allow him to proceed as I had instructed him to do. I received also a letter from Mohammed Hafiz Fazil, detailing the particulars of a conversation between him and Mohan Sinh, in which the latter asserted he acted under the express orders of Ranjit Sinh, and that he

* Sansar Chand died in the end of 1823, and was succeeded by his son, Anirudh Chand, with the concurrence of Ranjit Sinh; but, in 1828, the Raja refusing to give his sister in marriage to the son of the Sikh, Dhyan Sinh, a *protegé* of Ranjit's, was obliged to fly his country, and place himself and family under British protection. The Raj of Kotoch then became part of the territories of Ranjit.—Ed.

should not attend to any addressed to other officers: that his instructions were to prevent by all means my going on to Ladakh: that he knew his master's ways, who had treated me with civility to gain my confidence, but who never intended to permit the prosecution of my journey. My only resource was to appeal to Ranjit Sinh himself, to whom I also forwarded a report of this conversation.

Whilst I awaited at Shujanpur a reply to my letter, the Raja and his son and brother treated me with the greatest attention, inviting me to spend part of every day with them, and sending me presents of sweetmeats and fruit,—when an occurrence took place which confirmed their regard, and established between us a close and curious connexion. On the night of the 30th of June, Fateh Chand, the Raja's brother, a stout man about fifty-four, was taken seriously ill. He grew worse on the following day, and in the evening was considered to be in a dangerous condition. At the Raja's desire I went to see him. He was tossing and tumbling about on a low bed, on which he was with difficulty retained by several attendants. Upon the

floor on one side of his bed was a row of lamps, by which a naked ascetic, with matted hair and body smeared with ashes, was seated, gesticulating and muttering charms and prayers. Eight or ten Hindu and Mohammedan physicians sat or knelt round the bed, and in an adjoining room was the Raja with his family and attendants.

Fateh Chand was insensible, and breathed like a person in a fit of apoplexy. One leg was swathed with cloth from the toe to the hip, and bands of various-coloured cloth and thread were bound round his arms and ancles. As cholera was prevailing in the neighbourhood, I thought, at first, this was his complaint, but the symptoms were more of an apoplectic character, and I recommended bleeding freely, and the actual cautery to the stomach and breast. The Raja, however, could not be prevailed upon to employ these remedies. The Brahmans had pronounced that the prince was possessed by an evil spirit, and the Raja ordered them to drive it away. I wished to withdraw, but, at the Raja's entreaties, remained with him for about two hours, and witnessed the gesticula-

tions and mummeries practised as exorcisms. After about an hour had passed, one Brahman asked another more actively busied in gesticulating with his hands, and muttering incantations, what answer the goddess, Debi, vouchsafed?—to which he honestly replied Debi was silent, and his charms had no power. As the Raja continued averse to suffering me to adopt a more rational course, I at last retired.

At seven on the following morning a message from the Raja summoned me again to his brother. He had been removed from the bangala in the garden to an outer building, was abandoned by Brahmans, Fakirs, and physicians, and was placed on the ground to die. Much of his personal property had been distributed amongst the Brahmans and the poor, but his cows had not yet been given away. An astrologer had ventured to predict that if he recovered, it could only be through my aid, and the possibility of his recovery thus implied preserved his cattle, the grant of which would be injurious to his consequence should he recover. In complying with the Raja's request to attempt his brother's re-

storation, of which there seemed but little hope, I demanded, in the first place, liberty to do what I pleased with the patient, without objection or interference, and, in the second, that he should not suffer it to be said, in the event of that failure which was so probable, that his brother's death was, in any degree, owing to my treatment. He said that he gave his brother entirely up to me, and that, as far as he was able, he would prevent any blame being ascribed to me should I be unable to save his life. With this authority and guarantee I set myself assiduously, though with but little confidence, to adopt such measures as I conceived calculated to save Fateh Chand from apparently inevitable death.

It would be out of place here to detail the plans I pursued: they were, of course, of an active character, and such as, under other circumstances, would scarcely be warrantable: after resolute perseverance, however, they were effectual. The state of torpor was exchanged for vital, though sluggish, action in the course of the night. On the next day consciousness, though imperfect, was re-

stored, and on the 4th he was sensible. He continued to mend, though slowly, during the 5th and 6th, and on the 7th might be pronounced out of immediate danger: by the 10th he was convalescent.

Nothing could exceed the expression, and I believe the sentiment of gratitude on the part of the Raja and his son. Besides a valuable dress of honour, the former conferred upon me a grant of land, desiring me to appoint some one to manage it on my behalf. The whole country seemed to rejoice in Fateh Chand's recovery, for his courage and frankness made him a general favourite. He himself, when sufficiently restored, insisted on exchanging his turban for my hat, and making me his brother by adoption. He placed his turban on my head, and my hat on his; each waved his hand, holding a handful of rupees, round the other's head, and the rupees were distributed amongst the servants. He also gave me some green *dúb* grass, which I was desired to wear, and thus, notwithstanding the difference of caste and complexion, I became an honorary member of the family of Sansar

Chand. Whatever might be the value of such an association, it was a most unequivocal testimony of the sincerity of their gratitude.

During these proceedings letters from Ranjit Sinh arrived, in which he disclaimed all countenance of Mohan Sinh's conduct, and assured me that orders had been sent to that chief not only to desist from offering any obstruction to the advance of my baggage, but to provide facilities for its conveyance. He also alluded to the robbery, and promised me, if the money was not recovered from the plunderers, he would be responsible for its restitution; and he concluded by good-humouredly desiring me to place more reliance on the word of Khálsa Jí—a title properly belonging to the Sikh confederacy, but which Ranjit had adopted for himself. Advices also came from Mundi that Mohan Sinh had announced that parties were collecting for the transport of the baggage to the frontier. I wrote to Mr. Trebeck to send me word when he had crossed the Byas, as I would then join him from Shujanpur; but the rain had been so incessant, and the river was so much

swollen, that at present it would not be safe to attempt the passage.

One evening late I heard a sound, apparently not far from my tent, that seemed to be the booming of the batér or quail, and sallying forth to ascertain the cause, I found some boys snaring those birds. One of them was engaged in blowing into a small earthen pot with a hole at the bottom, which was placed close to the ground, and thus making the sound I had heard. Two others were seated with a light near a pile of dry grass. They told me that the noise, which was kept up for an hour or two, attracted the birds to the spot in considerable numbers, on which the boys by the grass set fire to it. The sudden blaze had the effect of bewildering the quails, so that they did not, for some time, attempt to escape, and, in the interval, the fowlers knocked them down with sticks. In this manner they often killed a great many birds; but it was only practised in the rains, and succeeded with none but quails.

I left Shujanpur on the 22nd of July. The Raja came to my tent in the morning, and took leave of me with much kindness. His

son met me on my way to the river, and bade me a friendly farewell. I quitted the town at nine o'clock, having now before me no further obstacles to my penetrating to Tibet than the natural difficulties of the country and the state of the weather.

The Raj of Kotoch, or Kangra, which is subject to Raja Sansar Chand, is about forty short kos in length from north to south, and varies in breadth from east to west from fifteen to forty kos. The greatest length is from Pathichar Mahal on the north-west, near the frontier of Chamba, to Bilaspur, on the south-east: the greatest breadth is from Baidyanath Maharaj, or Iswar Linga, a shrine of Siva, and place of religious resort on the north-east, adjacent to Kulu and Mundi, to Tulhati Mahal, to the south, on the borders of Jaswal. It is surrounded by Mundi and Sukhet on the east; by Kahalur and the Vale of Jaswa on the south; by part of Jaswa, Siba, and Gula on the west; and Kulu and Chamba on the north. It is separated from the Bist (or Byas and Setlej), Doab of Jalandhar, by the states of Jaswa, Siba, and Gula; and from the great snowy

range of the Himalaya by those of Mundi, Sukhet, Chamba, and Kulu. It is, however, close to the mountains, and is of considerable elevation. In some parts of it there is ice on the ground in July.

The Raj is divided into three provinces, or Kotoch, Changa, and Palam. The latter is the more western and northern, bordering on Chamba. Three considerable rivers flow from the northern mountains, the Bángangá, Kurali, and Nayagul, which unite in Haripur, and, under the name of Trigadh, fall into the Byas at Siba fort. The Byas itself waters the eastern portion of the Raj, flowing through Shujanpur, Tira, and Nadaun.

The natural products of Kotoch are not many, nor, in their present state, of much value, but they might be much improved under an enlightened government, strong enough to protect its territory from foreign aggression. Iron has been found, but the ore has not been wrought. In the neighbouring Raj of Mundi there are valuable mines of this metal. I have not heard of any other mineral productions except salt, of which there is a deposit in Mundi, from which the

consumption of the mountaineers in these districts is principally supplied.

Amongst the vegetable products may be enumerated rhubarb, which is procured in abundance on the farther hills of Kangra. All the pieces of the root which I have seen are, however, injured by decay of the central part, which makes it comparatively of little use. Opium is raised largely on the Kulu frontier, but the cultivation of the poppy and extraction of the juice are ill understood. There is a considerable demand both for opium and the poppy in the Panjab, as the Sikhs, whose religious creed forbids the use of tobacco, supply its place by opium and an infusion of poppy heads, to both of which they are much addicted, the former being used by the more wealthy, the latter by the poorer people. Cotton is reared on the skirts of the mountains at the head of the Doab, and furnishes the material from which the finer cloths of Hoshyarpur are manufactured, for the supply of the north-western parts of Asia to a very great extent. Agents from very remote places attend at Hoshyarpur, make advances to the weavers, and,

taking the cloth in the rough from the loom, bleach, wash, and pack it each in his own fashion to suit the market of his country. The cloths of Hoshyarpur, however, are generally light and flimsy. The district of Palam and the country east of Shujanpur produce plentiful crops of wheat and rice of a superior description. No timber trees of any bulk occurred upon the road, but firs of large size are said to grow in some of the tracts along the Byas. At no great distance from that river, also, on a mountain range called Nag ki Dhar, is an extensive bambu forest, from which the whole country is supplied. One of the most abundant trees met with is the mulberry, and it might be possible, therefore, to introduce the silk-worm with advantage into the country. Bees, both large and small, are numerous, and are domesticated for their honey, which is of an excellent quality.

Since the loss of Kangra, the Raja has resided principally at Shujanpur, or rather Alempur, on the right bank of the Byas, in gardens in which some small buildings accommodate himself and his court, and a larger one is

erected for his zenana. His earlier residence, and that of his predecessor, was at Tíra, where an extensive pile of buildings stands upon an eminence on the left bank of the river; the apartments are more spacious and commodious than is usual in Indian palaces, but they are now made no use of, except for the Raja's personal armoury, in which are some splendid swords, and for a small manufactory of carpets for his own use. Sansar Chand quitted this residence it is said in consequence of its being distant from water; but another reason is assigned by popular rumour. On one of the Raja's visits to Lahore, Ranjit Sinh remarked that he had heard much of the beauty of the palace at Tíra, and should like to see it. Sansar Chand replied he should have felt honoured by the visit, but that he had quitted Tíra, and the place had fallen into so much decay, that it was unfit to receive the Sikh chief, as he might satisfy himself by sending a person to inspect it. Ranjit accordingly dispatched an envoy for this purpose; but a messenger, sent off immediately by Sansar Chand, with orders to travel night and day, anticipated the Sikh

envoy in sufficient time to give Tíra a dismantled and desolate appearance. The report made by the Sikh deterred Ranjit from his proposed visit, but the circumstance excluded Sansar Chand from his patrimonial mansion.

Raja Sansar Chand spends the early part of the day in the ceremonies of his religion; and from ten till noon in communication with his officers and courtiers. For several days prior to my departure he passed this period at a small bangala, which he had given up for my accommodation, on the outside of the garden. At noon the Raja retires for two or three hours; after which he ordinarily plays at chess for some time, and the evening is devoted to singing and naching, in which the performers recite most commonly Brij bhákha songs relating to Krishna. Sansar Chand is fond of drawing, and has many artists in his employ: he has a large collection of pictures, but the greater part represent the feats of Krishna and Balaram, the adventures of Arjuna, and subjects from the Mahabharat: it also includes portraits of many of the neighbouring Rajas, and of their prede-

cessors. Amongst these latter were two profiles of Alexander the Great, of which Rai Anirudha gave me one. It represents him with prominent features, and auburn hair flowing over his shoulders; he wears a helmet on his head begirt with a string of pearls, but the rest of his costume is Asiatic. The Raja could not tell me whence the portrait came: he had become possessed of it by inheritance.

Sansar Chand deduces his descent from Mahadeo, and has a pedigree in which his ancestors are traced to their celestial progenitor, through many thousand years. I requested to have a copy of this document, and some Kashmir Pundits were ordered to transcribe it against my return. The pedigree is written in verse, and contains in general little more than the birth and death of each male individual of the family.

The practice of the horrible rite of Sati is frequent in these mountains: two widows were burnt during my stay, the elder of whom was not more than fourteen. The wives of Fateh Chand were in readiness to

accompany his body to the pile, when the success of my endeavours rescued them, for a while at least, from so fearful a consummation.

CHAPTER V.

March from Shujanpur—Palace at Bijapur—Cultivation—the Binoa River—Baidyanathpur—Fertility of the Lands—Forts of Mundi—Stone Bridge over the Gugli—Hindu Temples—Sculptured Feet—Vegetable Tinder—Town of Gumha—Salt Mines—Buza Beer—Heavy Rain—Village of Hulhu—Annual conflict of Wizards and Witches—Uttar Sal River and Village—Pass of Tilakpur—Prospect—Syri—Bajaura—Hindu Temple—Sultanpur, the capital of Kulu—Raja's Palace—Meeting with Mr. Trebeck—His Journal—Mundi—Byas River—Raja of Mundi—Salt Mines—Iron—Tiri—Festival of Adi Brahma—Bajaura—Death of the Rani—People of Kulu—Parbati River—Hot Springs of Mani Karn—Legend of their origin—Raja of Kulu—Vazir Sobha Ram—Fruit Trees—Unhealthiness of the Climate—Dress and Diet of the People—Departure.

I QUITTED Shujanpur at nine on the 22nd of July. The morning was dry, but heavy masses of white clouds hanging on the mountains of Mundi, threatened rain. The road descended to the bed of the Byas, and proceeded along its right bank for about half a mile, when it ascended a ravine called Sakku Ghat, leading to a few straggling houses on the top, which constituted the village of Sakku,

from which the white palace of Bijapur, which is about five kos north-north-east from Shujanpur, was in sight straight onward. Pears were in abundance of a small size. Wild grapes were also plentiful: they are ripe, it is said, in August. Three kos on the road was the village of Kangwen; and beyond it, flowing from the mountains on the left, was a considerable water-course which descended to the Byas. The district between the stream and the mountains forms the Jagir of Fateh Chand, whose residence at Palasi, a village on an eminence, was visible from the road. The Jagir is bounded by a stream which flows from the elevated plain of Jaysinhpur, the former residence of the Raja's ancestors. Kamla Gerh is here in sight, some distance to the east, and at about an equal distance beyond it, a small river called the Bakar khad, rising in the passes on the frontier of Mundi, falls into the Byas on its right, and with the Binoa, another feeder of the Byas, incloses an island covered with sisu trees, which is often a source of dispute between the Kotoch and Mundi Rajas. The rain came on heavily in the afternoon, and I took up my lodgings

in a hut on the plain of Jaysinh, near a new palace which Anirudh Rai is building.

On the 23rd I moved at nine, and soon crossed the rivulet of Bijapur, which skirts the foot of the heights, on which stands the palace, formerly defended by a square fort between it and the river: towers were erected on eminences commanding the approach, and the ascent from the river led through a strong gateway. The road skirts the foot of the mountains for above a mile, crossing another nala, and then turns off from the right bank of the Byas, leading through Tumiana Ghat to a flat with a temple and grove of mango trees: the spot is called Amal Tappa, and is about a kos and a half from Bijapur.

The path led hence northward, up an ascent to Sidhchaori, taking an hour and twenty-five minutes; ten minutes more brought us to some heights from which the jangal had been cleared, and which were laid out in terraces for cultivation. Farm-houses were scattered about upon the summits and slopes, and the scene offered an agreeable contrast to the rough thicket from which we had just emerged. This district is called

Chadiari, and extends several kos in all directions. It is contiguous on the north with the pargana of Drug, divided by the Binoa river from that of Kargaran.

The Binoa river rises in Chamba, from Yara ki joth about fifteen kos north-east of Baidyanathpur, and passing that place to the south, falls into the Byas opposite Kamlagerh, insulating with the Bakar khad the tract already noticed, called Molag. Its whole course is about twenty-seven kos, and it receives the Loni and the Sansari rivers. Both these rise in Kulu; the former at Tatto-ani (hot spring), ten kos north-north-east from Baidyanathpur, and falls into the Binoa at Diwar, two kos from Baidyanathpur; the latter at a place distant from Baidyanathpur, six kos east by north, and falls into the Binoa about two kos from that place in the same direction. The Binoa varies much and suddenly at different seasons. In the cold weather it is fordable in many places; in the hot weather its depth is much increased by the melting of the snows; in the rains it is a deep and rapid stream. We crossed it on skins at Goldon Ghat,

where it was sixty feet broad and eight deep. Fronting us was a bank of perpendicular rock forty feet high, over which the water from the rice grounds fell in two beautiful cascades. A sais or groom of Mir Izzet Ullah, who was a strong man and able swimmer, chose to swim across: he effected the passage, but again venturing into the current, was carried away and dashed against the rocks: he sank several times, but at last rising in face of a rock, he was laid hold of by the ferryman, and brought to shore exhausted and senseless. It was not without difficulty that he was restored.

The country north of the Binoa to Baidyanathpur slopes upwards, and consists entirely of rice grounds, watered partly by the rains, and partly by channels led down from the mountains: the soil is a reddish clay retentive of moisture, and extremely fertile, yielding the finest rice in the hills in the rainy season, and the finest wheat in the cold weather. The Raja keeps this tract in his own hands, giving two-thirds of the produce to the cultivators, on condition of their finding labour, tools, and seed; so that he has

one-third clear of expense. We reached Baidyanathpur at six o'clock, after a complete drenching and a most toilsome journey, for the soil being so wet and heavy, our horses could scarcely drag their feet through it. Baidyanathpur is a most miserable place, containing only a few huts and grainsellers' shops. I had much difficulty in finding shelter from the rain. I did not go into the temple, but was informed that it presented nothing remarkable. On my way I received a letter from the Rani of Chamba, who was indisposed, stating her ailments, and inviting me to Chamba. I sent her what I thought likely to be of service, but excused myself from visiting her. The road hence is said to be very difficult, it being necessary in many places to drag men and baggage by ropes up the scarps of the rocks.

It was necessary to halt during the 24th to allow our baggage to dry, as the weather had cleared up: we should have been detained at any rate, for the Rani of Kulu had lately died, and all the provincial functionaries were at the capital. I therefore sent off to the son of the Vazir, who was the nearest to us, to request

he would direct a supply of porters; and at the same time wrote to Sansar Chand, to request I might take on his people and soldiers to Kulu: this country forms an angle where the states of Kangra, Mundi and Kulu meet, and is much infested by robbers, from Mundi especially. I had received two letters from Sansar Chand, with some confectionary from the ladies of his zenana; and at Baidyanathpur an agent of Anirudh Rai brought me a present of two goats, and a large quantity of rice, sugar, and other supplies.

On the 25th orders arrived from Sansar Chand for one hundred porters to be furnished me, with an escort of thirty sipahis to attend me to Kulu, and supplies for ten days. A letter from the Rai also came, asking me if I had seen any lands on my march at Jaysinhpur or Baidyanathpur that I should prefer: heavy rain fell on this and the following day, and the Binoa rolled along with a blackened and rapid current. I wished to have crossed back to the west bank to examine the aspect of the country, and made an attempt, but the ferrymen were reluctant to persist, and the servants of the Raja most

earnestly dissuaded me from the undertaking: I therefore relinquished it. The soil here is of the same description as that before noticed, and being well watered by canals, trenches, and rivulets from the hills, which everywhere cross it in their course to the Binoa, is extremely productive. An unusual drought prevailed last cold season, and the crops were scanty, amounting to what is here considered a scarcity; yet fine rice was selling at thirty-six paka or full sers, and coarse at forty-eight sers for a rupee. Wheat was forty sers for a rupee. The cattle are small, and sell for four to six rupees a head. Labour may be had at two rupees per month. Porterage to Lahore, one hundred and twenty kos, is at the rate of two and a half rupees per paka maund. The country is healthy, if any opinion may be formed from the looks of the inhabitants.

On the morning of the 27th a few porters arrived from the son of the Kulu Vazir, with intimation that others would meet us on the road: above eighty more had been assembled from the peasantry of the neighbourhood, and we therefore set off. The direction of the

road was up a steep ascent north-east in the mountains of Mundi. We had not marched far when the rain poured down with a violence of which those unacquainted with tropical climates can form no conception; and constant torrents rushed across the road and embarrassed and retarded our progress. We met with no accident, however, and in an hour and a half reached the cultivated grounds of Aija. On the summit of a ridge on the right, about two hundred and fifty feet above the road, stood the most western fort of Mundi, which is visible from Shujanpur; a deep ravine separates the ridge from the main land, and is crossed by a wooden bridge. The rivulet which runs to the west from the heights of Aija empties itself into the Binoa just above Baidyanathpur: we had some trouble in fording it. On the sides of the road were abundance of barberry bushes covered with fruit; along with them grew a prickly shrub with a red berry of an agreeable sub-acid flavour. The hill people who had accompanied me from Nahan recognised it as a native of their country, where it is called Khai-an. Further on the road, but stretching to the east, are

two other forts; these with the first we passed are called Shirpur, Shahpur, and Shujanpur; the middle one seems to be the strongest. The plain was crossed by several streams which unite into one large trunk, the Rani, that flows to the south-east, and falls into the Byas at Puna-ka-tir, near Mundi.

In front of our road to the north-east appeared the fort of Karnapur on an eminence; it was merely a cluster of bastions, united by walls, and of no strength. The road wound round the hills on which it stood, so as to bring it to bear on the north-west, and then proceeded easterly and north over the plain to the Gugli river, the most considerable of those which form the Rani, and at this season a broad and rapid torrent, but fordable. A stone bridge had been erected across it, but the arches being too small, the water had washed away the structure, though it was twelve feet thick. This district formerly belonged to the Raja of Bangore, but his more powerful neighbours the Rajas of Chamba and Mundi dispossessed him, and divided his country between them. We stopped at Hara bagh, or green garden, so called from a pine

forest adjacent, eight kos from Baidyanathpur: it had several temples and a house belonging to the Raja of Mundi, in which we took shelter along with the women and children of the families of the herdsmen, who pasture droves of buffaloes in this neighbourhood, subsisting on their produce.

The morning of the 28th saw us set off in a mizzling rain. We passed on our left a group of Hindu temples, decorated with sculpture. Before each of them that was of any size was a figure of Nandi, the bull of Siva, his face towards the door of the temple, and the figure of a herdsman laying hold of his tail. The road ran to the east, over a rough causeway, through a thick wood of pine trees covering the side of a steep hill. The summit of the ascent, about half a mile from the village, was called Garhwa Chelí. The path then descended rapidly, between a small temple on the left, and an altar or mound of masonry, with two feet sculptured on it. These altars are very common, and, perhaps, indicate the former prevalence in these parts of the religion of Buddha, which, more than any other Indian creed, employs

this emblem. Going down the declivity one of the people plucked a leaf from a shrub growing out of the wall, the lower surface of which was covered with the cottony down that serves the mountaineers as tinder, catching fire readily from the sparks of a flint and steel, and burning slowly and without flame. The Nahan people call it kaphi, the Gorkhas, kapas or cotton*. Three mountain torrents, now swollen to rivers, were crossed on our way to the small town of Gumha, which is prettily situated half way up the face of a mountain. For nearly a mile the road leads up a steep flight of steps, and the whole distance from Baidyanathpur is paved irregularly with large stones. The town is of no extent, and the houses are arranged without any plan. They are two stories high, of stone, cemented by clay, and strengthened by fir timbers laid horizontally; thin planks of deal pierced with holes serve for windows; a band of yellow paint borders the doorway, and a low open verandah extends along the front; the roofs are constructed of fir spars

* It is noticed in Royle's Illustrations (p. 247) as the Chaptalia gossypina, and figured in plate 59. A kind of cloth is made from it.—Ed.

covered with slates, but the slates are laid loose, and are of every shape and size, just as they come from the quarry: it is not wonderful, therefore, that they imperfectly keep out the rain. I showed some of the people how to fasten the slates with pegs, and, as they listened attentively, they may, perhaps, hereafter, be indebted to me for drier lodgings. The temple at Gumha was covered with carvings.

Gumha owes its erection in this spot to the vicinity of salt mines, into one of which I descended. A horizontal shaft, about four feet square, extended from the side of the hill about twenty yards, where pine trees cut into notches for steps led down a slope to a second, and thence to a third shaft; the latter was perpendicular, and was descended by a bambu ladder to the bed of salt. The sides of the passage were protected by hides, and a stream of water ran along the bottom. Torches of pine wood lighted us down, but I could see little except a large cavity, the roof of which was formed of salt, and the bottom covered with shallow water. The salt occurs in solid masses in a rock of grauwacke, crossed by veins of quartz. As the

art of boring is unknown, the mineral is discovered by digging. A horizontal gallery is cut from the face of the hill, and as it advances is roofed with deal spars supported by sections of the stem of the fir tree. If this, after passing some way, does not come upon the salt deposit, wells are sunk until it is found, and then other shafts are constructed accordingly. When the face of the bed is laid bare, a stream of water is conducted to it by trenches from some hill spring along the bottom of the galleries, until it covers the surface of the bed. It lies there for one day. On the second the workmen cut grooves in the bed for the water to pass, and on the third day they break up the moistened salt, and carry it out of the pit. On the fourth it is conveyed to the public office, where it is sold to traders who come hither from all the neighbouring districts. The produce varies according to the season and the number of mines open. At this time two were worked, and yielded about two hundred maunds (about seven tons) every third day. In the winter about five hundred maunds are raised in the same period. The salt is the property of the Raja, and is sold at two paka

or six kachha maunds * for a rupee. The average profit is about sixteen thousand rupees a year. The workmen are paid at the rate of two rupees a month, half in cash and half in salt. The occupation is hereditary. The salt is of a reddish colour, very compact and heavy. When any of a white colour is found it is reserved for the Raja's own use. When the water accumulates in the mine, and the latter is superficial, it is brought out in pans; but if the excavation is deep, a lower shaft is dug into the bottom of the mine, by which the water is run off, and the salt brought out. The lumps of salt are packed in wicker baskets, which are fastened to the shoulders of the porters with straps;—women are often employed in this capacity. The porters, when paid by the traders, receive four rupees annually, and two and a half kachha sers per day of wheat flour. There is another bed of salt at a place called Drung, which yields an income to the Raja of eight thousand rupees a year. A salt spring flows

* A kachha ser, it is mentioned in the Journal, consists of thirty-two rupees' weight.

from the Drung mountain, but none issues from the Gumha hills.

I had great difficulty in procuring a lodging at Gumha, not so much for myself as for the Mir and my Musselman followers, the people declaring that they could never again occupy a dwelling polluted by Mohammedans. At last, however, I obtained leave for my people to enter two empty houses, and to place my own bed in the verandah of a hut belonging to an old woman and her son. We were scarcely housed before the rain fell in torrents.

Having heard that a sort of beer called buza was made in this country, I desired some might be brought. It had the appearance of gruel, or water thickened with oatmeal, and a sour and spirituous smell. It is prepared from barley, the grain of which is parched and ground, and the flour is mixed with rice which has been softened by steeping in water. The powder of the root of some bitter and aromatic plant that grows higher up in the mountains is added to the mixture, and the whole is put into a press to squeeze out the water, and dried. When re-

quired for use a piece of the dry cake is thrown into a vessel of water, and in the course of three or four days fermentation takes place, and the liquor is ready for drinking. It is a favourite beverage with all classes, and intoxicates only if taken to excess.

Incessant rain continued throughout the night, and the weather moderated only about eleven on the 29th. We moved at noon, in a south-east direction, up a steep ascent. At about a kos we passed through a wood of stately cypress trees, some of which must have been eighty feet high: it extended for two miles to the little village of Rowara. Beyond this the road lay between lofty and rugged cliffs, and descended to a water-course. This part of the route is termed Sileswar. We then again ascended, and from the summit of the pass looked down upon a valley running right and left, along which several villages were visible. Just below it we came to the hamlet of Phuta Khad, where the villagers cleared some of their upper apartments for our accommodation;—to be sure the lower ones were occupied by

cattle, and not kept in a very cleanly condition, and the air in our chambers was not of the purest. We were too glad, however, to obtain shelter from the heavy rain which had recommenced, to be fastidious. Barberry bushes, full of fruit of a blue colour, were numerous, and I found French beans in a garden.

Soon after starting on the following morning heavy rain encountered us, with a strong and piercingly cold wind, driving the clouds past us like thick smoke. It became difficult to see our way and keep our footing, and one of the party endeavouring to protect himself with a chattah (or umbrella), was blown off his horse; luckily he was not hurt. The storm lasted for above two hours, and when it cleared we were on the top of a height, from which a cleft in the mountain through which the Byas was said to flow was seen in a direction south-east, about three kos off. On our left, in the bottom to the north-east, ran the rapid stream of the Ao; and beyond it, about four kos in the same direction, perched upon the peak of a mountain, was the fort of Amir Gerh, belonging to Kulu. The road

ran a little more to the north of east to the height of Khajauti; from hence we plainly distinguished the town of Mundi on the left bank of the Byas, about seven kos distant; and we saw also another face of Kamla Gerh bearing south-west, distant about fifteen kos.

After skirting the line of the right bank of the Byas at a distance of about four kos, the road suddenly turned to the south, and crossed the mountain of Gogar: at about two kos we came to the village of Hulhu or Hurhu, where Mia Zalim Sinh, the brother of the Raja of Mundi, had a house. Notwithstanding the rank of its owner, it was not equal to a good mud cottage in England. We took up our abode in it, as it was deserted; for Zalim Sinh having quarrelled with his brother, had been obliged to quit Mundi, and was now protected by Sansar Chand. The mountain of Gogar is famous for a fierce conflict which is said to take place in it annually, beginning on the 20th of Bhadon (August—September), between the Deotas or wizards, and Dains or witches, who assemble from far and near, even from Bengal and the Dekhin. About half a kos north-east of Hulhu is the salt

mine of Drung: the town of Mundi is said to be four kos distant.

On the 31st we moved in light rain: our journey lay over a rugged path of ascent and descent, in a south-eastern direction, having the river Hulhu* on our left coming from the north. At a quarter before two we reached its bank, where the stream was about eighty feet broad, running with great rapidity, and foaming furiously over large blocks of stone. Finding a part free from these obstacles, our horses swam across with the assistance of our deri-men. Descending the bank, we came to a wooden bridge formed of overlying timbers and planks, upon the same principle as those which are common in Kamaon. The lower tier consisted of trees fastened at one end in a buttress of stone, and having the other end projecting over the river; above this another stage of timbers was secured, and jutted out beyond the lower; and a stage of planks resting upon the ends of this, completed the span of the river: the whole was bound together with loops of timber, and there was not a single piece of iron in the structure.

* The Ohl of Trebeck's journal.

After crossing the bridge we turned to the north-east, having on our left the Uttarsal rivulet, which falls into the Hulhu; and after crossing a hill, the ascent of which was by four hundred and sixteen stone steps, we again descended to the rivulet, and forded it to the village of Uttarsal. This consisted of a few mean huts, and the inhabitants were almost naked, and looked miserably poor. Two brick towers about twenty feet high, divided into two stories, were said to belong to the Raja.

The 1st of August was the first sunshiny day we had seen for a long time, and we started at eight o'clock. The road lay along the right bank of the Uttarsal for about two miles, but then crossing to the left, ascended a steep eminence. From hence we saw that the Uttarsal was formed of two considerable branches, which join a little below the village. Some hill forts in Kulu were also visible on the left; the nearest was said to be Amir-koth. Passing over a small plain, we again ascended to the village of Shuru, where a rivulet on our left, running into the Uttarsal, marked the boundary be-

tween Mundi and Kulu. We then proceeded north-east, and about one reached the pass of Tilakpur. Throughout the latter part of our march the appearance of the country was delightful: vast slopes of grass declined from the summits of the mountains in a uniform direction, but separated by clumps of the cedar, cypress, and fir: the rhododendron and the oak were growing upon our path; the ground was literally enamelled with asters, anemones, and wild strawberries. In some places the tops of the hills near at hand were clearly defined against a rich blue sky, whilst in others they were lost amidst a mass of white clouds. Some of them presented gentle acclivities covered with verdure, whilst others offered bare precipitous cliffs, over which the water was rushing in noisy cascades. In the distance right before us rose the snowy peaks, as if to bar our further progress. Vast flocks of white goats were browsing on the lower hills, and every patch of table-land presented a village and cultivated fields: glittering rivulets were meandering through the valleys, and a black forest of pines frowned beneath our feet. We were not long allowed to con-

template the beautiful picture, for a strong south-west wind overspread it with vapour and cloud, and concealed all the more elevated portions from our sight, threatening us at the same time with a deluge of rain. We therefore quickened our steps and plunged into the forest. Many majestic trees, varieties of pine, including the cedar, embellished the precincts of the wood.

The road was now a continued descent, and was accompanied by many water-courses, which uniting at the foot of an eminence, on which stood the village of Syri, formed a considerable stream, the Rupareri. This river here divides Mundi from Kulu, and running under the walls of Bajaura, falls into the Byas on its right bank. Bajaura is a large square fort belonging to Kulu; it consists of square towers connected by a low curtain; the whole built of hewn stone strengthened with beams of fir. On the right bank of the Rupareri was a Hindu temple covered with sculptures in relief, in general well executed. A sort of chest with raised sides, and festooned with flowers, was an ornament frequently repeated; but the chief decoration was in the clustered

pilasters at the doorways, tastefully entwined by richly-carved scrolls of creeping foliage. There were many images, most of which were in good preservation, except their noses, which were said to have been knocked off by the soldiers of the grandfather of Sansar Chand when he invaded Kulu. Mr. Trebeck informed me that the statues of the Rajas of Mundi have suffered a similar mutilation.

We encamped upon the right bank of the Byas. The river runs from hence south-east towards Mundi; its breadth opposite our station was one hundred yards, and its rate five miles an hour. On the 2nd of August we marched along its right bank over flat land, laid out in steps between the stream and the mountains on our left: the breadth of the river frequently varies, and it is often broken into channels by small islands overgrown with alders. The Serbari, at this season a considerable feeder of the Byas, crossed our path in two divisions: one was fordable; a wooden bridge was laid across the other: beyond this a high plain gave us a view of the town of Kulu.

Sultanpur, or Kulu, the capital of the Raj

of the same name, stands upon a triangular spur of table-land projecting from the foot of the mountains; the apex of the triangle is placed towards the conflux of the Serbari and the Byas. The part next the river, forming the southern or lower town, is occupied by the buildings in which the Raja resides with his family and attendants. The upper part of the town consists of the houses of traders, artificers, and shopkeepers, and is separated from the lower division by a small bazar. A few coarse chintzes, blankets, and cotton cloths, with opium and musk, are the chief articles of traffic, the three former being brought from the plains, and paid for with the two latter. The principal traffickers are wandering mendicants, of whom a vast number assemble here on their way to holy places in the mountains: there are also above two hundred supported by allowances from the Raja. Kulu is of no great population or extent.

Here I was joined by Mr. Trebeck and the party from Mundi with our merchandise. Mr. Trebeck's journal will furnish the chief particulars of their journey hither.

"After a detention of some weeks we quitted Mundi on the 11th of July. The town presents little worthy of notice, although it is of some extent, being fully thrice as large as Kulu. It is situated in the angle between the Byas and Sukheti rivers. The most conspicuous object is the palace of the Raja, which stands in the southern part of the town, and presents a number of tall white buildings, with roofs of blue slate, concave, like those of Chinese pagodas. The general appearance of the houses resembles that of the buildings at Almora. Close to the entrance of the town are several pilasters, and smaller blocks of stone bearing representations, in relief, of the Rajas of Mundi. One of these is set up on the death of each Raja, and sometimes on the demise of his relations. Each is sculptured, also, with the figures of his wives who have been burnt with him; a practice carried here to a frightful extent. On several occasions, I am told, the number of these victims of superstition has exceeded thirty. A very good ghat cut in the rock leads to the river, which is crossed by a crazy ferry-boat. Most of our baggage was carried across on skins.

The breadth of the river varies as the high rocky banks recede. In one place it was two hundred yards across, and opposite to where we encamped it was above one hundred and fifty yards. In some places where the bank is shelving the river beats up it with a considerable surf. The depth varies: it was two fathoms where we brought to, but in some parts along the bank it was much more shallow. It undergoes, however, a periodical rise and fall every day, owing to the melting of the snow on the mountains, where it rises as the heat of the sun increases. The effect of this is felt at Mundi in the evening. The river then begins to swell, and continues rising through the night. In the morning it declines, and through the day loses considerably, perhaps one-third of its body of water.

"Near Mundi, on the opposite side of the Sukheti river, is a large temple, dedicated to an image which, five generations, or above two centuries ago, was purchased by an ancestor of the Raja at Jagannath for seven hundred rupees, and was brought here at a great expense.

"The Raja of Mundi, Iswari Sen, is a

short stout man, about thirty-five, of limited understanding and extreme timidity. The latter he inherits from his father, of whom it is asserted that he passed an order that no gun should be fired off in his country. In his infancy he was either a ward or a prisoner to Sansar Chand, and he was indebted to the Gorkhas for restoration to his Raj. He assisted them in their invasion of Kangra, and also aided Ranjit in his operations against Kangra and Kulu. This has not preserved him from the fate of the other hill Rajas. He is tributary to the Sikh, and treated by him with contumely and oppression.

"On the 13th we crossed the river Hulhu, which is said to rise in Chamba. It falls into the Byas at Bilwara, two and a half kachha kos from Mundi. We crossed it by a spar bridge, above one hundred feet long between the buttresses. The Hulhu is joined not far from this by the Uttarsal river. We halted at Kamand, from whence a deep but not broad valley separated us from the mountains in which are the salt mines of Drung. They seem to be very pro-

ductive. In April and May, whilst we were at Mundi, two hundred persons with heavy loads of it passed us daily. At the mine it costs about seven anas per paka maund. This and the iron mines form the chief sources of the Raja's revenue. The iron is farmed to different persons. There is a great quantity of it in the neighbourhood of Kamand. It is found in grains in a blue slaty stone. After bruising and washing the ore is put into an earthen vessel in a small clay furnace, to which a couple of bellows are attached, their nozzles being placed just above the vessel with the ore. The metal is run together by this process into lumps, but the fusion is very imperfect. It is sold in this state at about three and a half rupees per paka maund.

"On the 15th we entered Kulu. On our road, at a place called Tirí, a number of people were celebrating the festival of a deity, Adi Brahma. The god was personated by a villager seated on a high-backed chair, with a pole on each side for carrying it. It was covered with some dirty striped silk, and in the back were eight heads or masks made of metal, silvered and gilt.

Tufts of barley grass and peacocks' feathers were stuck about the chair, and every peasant wore a bunch of young barley in his cap. The man who acted the god affected to reply prophetically to questions that were put to him by the bystanders, and seemed frequently to afford them much merriment. Amongst other things, he foretold a fierce war at hand. The ascent to Tirí was very fatiguing, though rather from its length than its abruptness. It brought us once more into the region of the rhododendron, the cedar, and the oak. From the ridge no fewer than thirteen forts in Kulu were visible in front of us, and although these are miserable as fortifications, they are picturesque in their outline and positions on commanding heights.

"We halted near Bajaura, not far from the Byas, where it was joined by a small winding rivulet, which we had repeatedly forded on our march. On our way we had heard of the death of the Rani, whose body had been lately burnt near the place where we had halted. We were told that eleven of her female attendants had burnt themselves with her corpse, and no reason was assigned

for this, but that they did not wish to survive their protectress. We were detained here two days, as all business was suspended, and porters could not be procured.

"The people of Kulu are stouter and more active, and a finer race than any of the hill tribes we have yet seen, but they are savage and vindictive.

"We resumed our journey on the 19th, and arrived at the capital, halting opposite to the end of an island which divides the Byas into two channels a short distance below the town.

"A road from the vicinity of our tents, which runs first east by north for about two miles, and then diverges east by south for three or four more, leads to the place where the Parbati, or Parba, river, nearly as large as the Byas, falls into the latter. It is crossed by a wooden bridge, and the road continues for some distance up its left bank, where another sanga or bridge leads across it to a place called Mani Karn, where are some hot springs, about forty paces from the river. The water is hot enough to boil rice, and rushes out with much violence and noise. It

has no particular taste or smell. Besides three principal springs the water oozes out in many places beneath the stones, and nearer the river there are some reservoirs, in which it is received, and in which, when sufficiently cool, people who come hither in pilgrimage bathe. A dharma sala, in which pilgrims are lodged and fed, is maintained at the expense of the Raja. According to the legend the goddess Parbati having laid her jewels upon the bank whilst bathing with Mahadeva in the river, her ear-rings (manikarnika) were stolen and carried off to Patala, the regions below the earth, by the serpent Sesha. At the probable consequences of Mahadeva's wrath, the gods discovered the thief, and urgently pressed the Naga to restore his plunder. Sesha refused, claiming the ear-rings as his own property, but, as he snorted with indignation, the subject of the dispute issued from his nostrils, in which it had been concealed, and flew back to the goddess. Through the openings made by its passage to the surface of the earth boiling water has ever since continued to flow.

"Little is known here of the course of the

Parbati further than Kanaonwa, a village on its right bank, twenty kacha kos north-east of Mani karn; its source is supposed to be a day's journey from Kanaonwa. It enters the Byas close to the village of Bhuind."

The Raja of Kulu, Ajit Sinh, is at present a boy of less than ten years of age, and the affairs of the Raj are administered by the Vazir Sobha Ram, who appears to be a plain, intelligent man. He complains bitterly of the tyranny and exactions of Ranjit, and in common with all the hill chiefs is desirous of being taken under British protection: he has paid rather dearly for his attachment to us. When the ex-king of Kabul, Suja al Mulk, fled from Multan, where, under the plea of protection, Ranjit kept him a close prisoner, and fleeced him of his most valuable jewels, he first sought refuge in Kulu. The Sikh demanded him back, but the political agent of the British government recommended the Kulu Vazir to facilitate the Shah's retreat to Ludiana. Ranjit made him pay a fine of eighty thousand rupees for his compliance with this counsel. Again, in the

war with the Gorkhas he was called upon by the British for some co-operation, which he readily afforded, and for which a present of five thousand rupees were given to him. Ranjit fined him fifty thousand for accepting the remuneration, and for interfering at all. He does not complain of this, however, and hopes a time may come when he may be freed from such oppression. He was as civil to us as circumstances would permit, ordering porters to be furnished, and giving me letters to the authorities at Lahoul, which is within the limits of Kulu, and to the Raja of Ladakh.

The vicinity of Kulu abounds with walnut, quince, and apricot trees; the two former were not yet ripe, the crop of the latter was over: an oil is distilled from the kernels of the apricot, and is in general use. Bronchocele prevails amongst the people here to a frightful extent; at least every other person is affected by it. Leprosy is not uncommon, and the situation of the place seems generally unfavourable to health; several of our party suffered from its climate.

The clothing of the people thus far has

been for the most part of white and coloured cottons, but from hence woollen garments prevail, generally of the colour of the fleece, but sometimes dyed of two colours; where this is the case the pattern is always a kind of plaid. The common garb of the poorer classes is little else than a blanket, which is first wrapped round the waist; one end is brought over the shoulders, and fastened across the breast with skewers, and the other is passed round the thighs and secured to the waist; the legs and feet are bare. When the snow begins to fall, however, a double coating is assumed, and trousers and bootkins are added: persons of respectability wear a sort of jacket and trousers, the latter very full above and tight at the ancle. Both men and women wear woollen caps; those of the former are flat, of red, with an up-turned border of black, or wholly black; the caps of the women are commonly left undyed, but they have a fringe on the top which hangs as a tassel on one side, and their long black or dark-brown hair plaited into one tress, and lengthened with brown worsted, is turned up behind, and twisted round the cap, and has not an unpleasing ap-

pearance. The women are in general small, and many are pretty; but they are often disfigured by goitre: they wear heavy rings in their ears, and broad massive anclets of a metal of the appearance of pewter.

The people seem to be moderate in their diet, and live chiefly on wheat and barley flour. The satu of barley, or barley boiled, parched and ground to flour, mixed into a paste with a little water, is a common article of diet, especially when travelling. Various common grains, and buck-wheat, chenopodium, and poppy seeds, are ground and made into bread. Although orchards are common, no esculent vegetables are reared. I do not think that any spirituous liquor is known to the mountaineers, at least beyond the buza, which every one drinks. A narcotic preparation of the juice of hemp is also used, but it is said that few are guilty of excess either in the use of this, opium, or tobacco: the latter grows in most of the gardens, but it does not appear to be very luxuriant.

Having remained some days at Kulu to collect grain and porters, we resumed our route on the 10th of August.

CHAPTER VI.

Valley of the Byas — Ancient Capital of Kulu — Mineralized Springs at Bashisht—Limit of Rice Cultivation—End of the Kulu Valley—Ralha river—Ascent of Ses dhàr—Source of the Byas—Image of Byas Rikhi—Pass of Ritanka joth—Chandrabhága, or Chandra River—Province of Lahoul—Village of Kuksar—Monumental Piles—Sculptured Stones—Currant and Gooseberry Bushes—Junction of the Suraj bhága—Course of the Chandrabhága to the Plains—Source and Course of the Ravi—Tandi—Grain Store of the Raja of Kulu—Dress of the People of Lahoul—Of the men—Of the women—Ornaments and Implements—Willows—Villages—Gardens—Apples—Tartarian Wheat—Flocks of Sheep—Dharm Sinh—Lahoul Carriers—Tatar Cookery—Gniungti river—Last Village in Lahoul—Sacred Trees—Falling Mountain—Chukam River and Lake—Baralacha Pass—Natural Drains—Yunam Lake and River—Shattered Rocks—Fragments of Stone—Conglomerate Columns—Boundary between Lahoul and Ladakh—Pass of Lacha-lung—Insulated Rocks—Fantastic Cliffs—Plain of Kiung—Parties of Tatars—Hares—Ladakh Visitants—Pass of Tung-lung—Snow Clouds—Village of Rum-chu—Flight of Villagers—Approach to the town of Giah.

We crossed the two branches of the Byas by spar bridges, and proceeded along the left bank of the river; on our right, above the village of Grahan, we passed a neat white house belonging to Mia Kaphur Singh, the uncle of the present Raja. The valley was in some places of considerable breadth, and well cul-

tivated. The villages were surrounded by orchards of peach, apricot, and walnut trees; the hedge rows and woods abounded with wild pomegranates, pears, figs, and grapes, both green and black: grapes are cultivated in the gardens about Kulu, but in general they are only fit for sherbet.

The cultivation of the valley continued for a great extent, and villages were frequent; the houses were in general of stone, and some three stories high; the ground-floor was uniformly appropriated to the cattle: our track repeatedly lay along watercourses dug for irrigation.

On the 11th we passed a house belonging to the Raja on our right, situated on an eminence, at the foot of which stood the ancient capital of Kulu, called Makarsa: a few houses are all that remain of it, as the removal to Sultanpur took place about three centuries ago. I could not learn that any old monuments had been discovered, although it is said to be the most ancient city in these mountains. Just before entering the village of Jagat Sukh we crossed the Doangnu, a mountain torrent, rushing over large stones

and rocks, and having in one place a fall of twenty feet. The spray thrown up by the cataract is said to be the breath of the nostrils of some local divinity, who is also named Doangnu.

The valley narrowed as we ascended to the north, and was crossed by the Phari Nala, which we forded, and then by the Raini, over which a sanga was constructed. This stream was rapid and deep: it is said to rise in Piti, in Ladakh, at ten days' distance, and it falls into the Byas near at hand. On our right, close to the road, was the village of Arrheo, which was deserted; and higher up the mountain, in the same direction, was the hamlet of Hamta, whence a road passes to Rodokh. We then descended to the Byas, and crossed it at Jaharan, where it was sixteen or seventeen yards broad. Following the bed of the river, we came to a gorge, where the valley was not above a musket-shot broad. The rocks which bordered it on the left, though steep, were rounded; those on the right rose perpendicularly, forming castellated parapets on their summits, which were surmounted by a pine forest. Several cas-

cades rushed down the sides of the rocks, and the whole formed a scene worthy of an artist's pencil.

Leaving our baggage at the village of Gosala, Mr. Trebeck and myself crossed to the left bank of the Byas, and ascended to the height of Basht or Bashisht, to visit the hot springs there. There was one spring which flowed partly at once into a reservoir, and partly by a side channel into a second reservoir or bath. A strong smell of sulphuretted hydrogen escaped with the vapour, and the water had the taste of Harrowgate water: no medicinal properties are ascribed to it by the natives, and it is visited only by a few devotees.

On the 14th we resumed our course along the right bank of the Byas: we here left the limit of rice cultivation, for which buck-wheat, now in flower, was substituted. Cedars, cypresses, and various kinds of pines occupied the sides of the river and adjacent heights. About a kos and a half on this day's march, the Sarahi from the north-west fell into the Byas, rushing down with great rapidity and noise. A Sanga bridge was placed

across the rocks which confined this torrent, and which was not more than twenty feet broad. In some places higher up the river was five times that breadth, and the sudden contraction of its channel produced the fury and velocity with which it descended: it is also said to rise at times considerably above its present level, and sweeping away the bridge, to be impassable. We crossed with some risk, and one of my followers was thrown into the current by a hill pony: he managed however to get out unharmed.

The Byas river, above its junction by the Sarahi, was called the Byas Rikhi: in some parts of its course it passed along a narrow and deep channel of rock, which could not be less than eighty feet deep, and not more than eight or ten yards broad: a Sanga was constructed across the chasm. The road hence ascended up some rugged crags at a place termed Bagu Suan: the summit afforded pasturage to some pony mares. In front the long valley of Kulu terminated in an angle, being shut up by a range of cliffs, down which numerous streams of water were trickling. At the eastern corner the Byas entered

the valley through a gorge, studded with oaks, sycamores, and pines, and divided by islets into several channels. Through this gorge lay our road: it was intersected by several mountain torrents, and by one considerable rivulet, the Ralha, which is said to flow from the Serkund, a lake in the same range, but to the westward of the Ritanka joth, and a few hours north of us: this lake is formed by the melted snow, and has two issues; one of which is the Ralha on its southern face, and the other on its northern is a feeder of the Chandrabhága river. After crossing this stream on the rather insecure footing afforded by three pine stems and some large stones, we came to the ascent of Ses dhàr, leading to the pass of Ritanka joth. On the right was a winding path for cattle, on the left a steep stone causeway: it is a rude but useful work, and deserves a tribute to the name of the constructor, Killat Bhagt, the guru or religious head of an establishment of mendicants at Bonua, a small village between Gosala and Phulchan. We encamped about half way up the mountain, and had the satisfaction of beholding the

clouds now drifting along the valleys under our feet. Snow rested upon the mountain about a mile in front of us, and the herbage about us was intermixed with the small shrubs and plants of European fields.

The ascent on the following day continued first towards the east and then turned to the north. The Byas, on our right, flowing down the mountain, was joined by the Sagu, a stream as large as itself, issuing from beds of snow to the east. The summits of the less elevated peaks about us were bare, but those of the loftier were capped with snow, and snow lay in the gorges which were on a level with our path. From beneath one of these beds, in an angle of the mountain, a stream dashed across the road. Beyond this the ascent proceeded in a more easterly direction for about a mile and a half, and on the right, at a short distance, was the source of the Byas, about a hundred feet below the top of the pass. A rill about three feet broad and a few inches deep trickled from underneath an insulated block of mica slate. The soil about the spring was soft and spongy, and intersected by many shallow

channels: the ground inclined gently, and the spring ran in a south-westerly direction. A few feet in front of the rock a low wall of loose stones formed three sides of a quadrangle, the side next the stream being open, to leave the access to it free for its presiding genius, Byas Rishi*, of whom a small image, about a foot and a half high, stood against the wall nearest the rock. A smaller figure stood by its side. Although sculptured out of a hard stone, the images were much worn, apparently by time and exposure. Within the walls were strewed flowers, offered to the Rishi by Hindu pilgrims, with whom it is also customary to set up a stone on end in commemoration of their visit. Our people constructed a small pile, as a memorial of the first visit paid by a European to the source of the Byas.

The ghat or pass of Ritanka Joth†, which

* Byas, or Vyása, is the reputed arranger of the Védas, and compiler of the Puranas, the scriptural authorities of the Hindu religion. According to Hindu chronology he flourished about five thousand years ago.—Ed.

† Dr. Gerard, who followed this route about ten years afterwards, calls the pass Rotang: his estimate of the height is thirteen thousand feet. *Asiat. Res.* vol. xviii. 275.—Ed.

is above thirteen thousand three hundred feet high, forms a gap in the most northern and elevated mountains of Kulu, running with a tolerably level surface, about a quarter of a mile in breadth, for a short distance, between mountains of not much greater elevation. A clear sky displayed before us the lofty and still distant peaks of the mountains of Tartary, white with perpetual snow. Snow also tipped the crests of the inferior ranges, which were nearest to us, and although discoloured by rain and the debris of the mountains, it filled up the ravines and hollows, and fed numerous torrents, which sometimes flowed gently, sometimes dashed precipitously down the sides, and fell into the Chandrabhága, or rather the Chandra, the main branch of the river which is properly called by the former name only after it is joined by another considerable stream. This river, separating Kulu from Lahoul, was flowing along the bottom of the valley on the northern side of the pass, entering it at a narrow gorge on the east, and proceeding towards the west, and receiving also the waters that descended from the northern face of the chain of mountains on which we stood.

Just below the ghat were two pools sacred to the deity Gepan, the patron of Lahoul. The road then descended for about five miles to the left bank of the Chandra, across which a swing bridge led to the hamlet of Kuksar, formed of two villages, one to the east, the other to the north of the bridge, both surrounded by lands well cultivated with crops of barley and buck-wheat. The houses were of stone, cemented with mud, and with flat roofs. Here we found the red Alpine strawberry, with a very fine flavour, as well as the other tasteless or steril varieties which had previously been met with.

We were detained here for one day, owing to the difficulty of crossing our horses. In the attempt to help a hill pony across by a rope fastened to his neck, the animal was drowned. The others swam over loose, attended by a couple of deri men, who with much difficulty were prevailed upon to trust themselves to the current. The river was, indeed, rushing along with fearful rapidity, foaming in spray over the large stones and rocks that obstructed its course. Where crossed by the jhula it was ninety-six feet broad; but this place had been chosen for a

bridge, as the narrowest in the vicinity. Near this place the river that flows from the Sar Kund, opposite to the Hulhu, falls into the Chandra. The bridge was made of ropes formed of birch twigs, and the flooring was of wicker work of the same material.

The road led us along the foot of the bare cliffs of Kuksar, between them on the right, and the river on the left. At upper Kuksar we noticed a pile of stones, on the top of which were laid slabs of various sizes and forms, having inscriptions cut upon them in two or three different characters, with which I was unacquainted. I saw many such piles in Hiundes, and there understood that they were erected by the Lama who had charge of the district, but here I learn that they are monuments to deceased individuals, bearing the name, age, and character of the person in honour of whom they are constructed, and being of an extent proportioned to his rank. Some of them were, at a distance, like small houses or towers, being twelve or fourteen feet high, tapering at the top, and occasionally whitewashed. On our way we fell in with two half-starved Hindu fakirs: one of

them had come from Chapra, the other from Ougein: both were going on a pilgrimage to Tilaknáth.

Between the first and second village of Sisu we crossed the Sisu river, a narrow torrent rushing down with a force which must wear away the most compact rock. Growing near it was the variety of currant which I had observed at Niti. On the summit of the ascent from the water a flat stone, sculptured with figures and flowers, was set up on the right of the path. Further on the road passed through a stone door-way, sacred to Gepan, and stuck full of flowers on the sides, whilst the top of the wall was ornamented with pieces of white and coloured quartz. Another sculptured stone was erected at the end of the second village. Here I saw the first gooseberry bush that had occurred on our journey. We encamped at the third village or town of Sisu. These were mean-looking hamlets, but the crops of barley and wheat about them indicated both a good soil and industrious tillage.

On the succeeding day we passed many small villages on both banks of the river,

and much land in cultivation with the same crops. Each village had a plantation of willows, they were all pollards: the twigs are used for baskets. The Francoline partridge was in plenty, but the young ones were but just beginning to fly. It rained in the night in the valley, but snow had fallen on the heights.

On the 21st of August the path lay along the slope of the mountains, and over crumbling fragments of rock, which threatened constantly a slip into the river, about two hundred feet below. After ascending and descending repeatedly, we again came to the bed of the river, and crossed it by a suspension bridge. A river coming from the east here fell into the Chandra, and the stream was thenceforward known properly by the name of Chandrabhága. The tributary, according to the Kanungo of Tandí, is called the Surajbhaga.

After receiving this accession the Chandrabhága was above two hundred feet broad, and flowed with a steady current towards the north. It proceeds hence to Kishtewar, one hundred and fifty kos; thence to Aknúr, fifty kos; and to Gujrat, sixty kos, from whence

its course by Vazirabad is well known. It receives the appellation of Chin-ao, in Kishtewar, and Chiñ-ab in the plains, indicating a belief, apparently, of its rise in Chin, or China. May not the Greek name Ace-Sines have had some such allusion also? The only information we could obtain of its source was, that it was situated in Piti in Tartary, and that a man following the course of the river would reach the head of it in ten days according to some, in two according to others. From the muddy appearance of the water, and the proximity of the snowy mountains, towards the east and north, it seems likely that the latter report is nearest the truth, and that the distance does not exceed thirty miles at most.

Whilst on this subject I may mention what I learnt regarding the source of another of the Panjab rivers, the Ravi or Hydraotes, from two persons who came to me from the Rani of Chamba. There are two lakes in a mountain called Manmakes, about ten days from Tandí, in a westerly direction, named Dal Kund and Gauri Kund: a small stream from each of these unites with the Sib Kiro-

tar, a rivulet that rises from a spring between them; and the three, forming a current large enough to turn a mill, runs to Harsar, one day's journey to the south-west. At this place the stream, increased by mountain torrents, is called the Raiva. It then flows past the city of Chamba, built on its right bank, opposite an angle formed by it and the Sawa, a river from the north-east, five kos in length. Leaving Chamba it flows to Ulans, seven days' journey, where it receives the Siang, from Bhaunso, also in the Chamba country, thirty kos from the capital. It is then called the Ravi. At Tirmu Patan it receives the Tavi, which rises in the mountains of Seoj, in the Raj of Badarwa, eighteen kos from Jamu, and which has been augmented on its course by the Uj from Koth Belota, thirty kos west from Jasrota. Thirty kos lower down, and fifteen or twenty from Lahore, the Ravi is crossed by the bridge of Shah Doula. Both the Ravi and the Byas rise to the south and west of the Chinab, although they run east of it in the plains, being included, as it were, within an arch

or semicircular sweep made by the latter river. About three hundred paces north-west from the spot where the Surajbhaga and Chandrabhága unite is the village of Tandí, and opposite to it is that of Gosha: the latter is much the larger of the two. Tandí consists of but a few houses, but one of these of some extent is a store belonging to the Raja of Kulu, in which the grain paid by the peasantry as rent is deposited, and sold on the Raja's account. Two of his officers, the Hakim and Kanungo, or commissioner and accountant, reside here. The peasantry of Lahoul hold their lands of the Raja of Kulu, except at four villages, Barkalanak and three others, which we passed on our way to Tandí, and which, whilst they acknowledge military fealty to the Raj of Kulu, pay rent to the state of Ladakh.

The inhabitants of this part of the country are much employed as carriers between Chamba, Kulu, and Ladakh, transporting merchandise from the latter country, chiefly wool, on ponies about thirteen hands high, well made, strong, and well trained to the

peculiarities of mountain carriage. Sheep are also used to carry grain and goods. The hire of a pony from Tandí to Lé was ordinarily eleven rupees, each carrying two paka maunds: we were made to pay thirteen rupees. Although the charge was high, yet, as supplies were not likely to be abundant on the road, and grain is ordinarily dear in Ladakh, I laid in a considerable quantity of wheat flour at Tandí, and engaged carriers and ponies for its transport.

In this part of the country both men and women dress in woollens, winter and summer. The cloth is worn as it comes from the loom, and is made by the peasantry. Wool is bought here at twelve kachha sers of twenty-seven rupees, or about eight pounds for the old Delhi rupee. Two pieces of woollen cloth, with a thick felt on one side and smooth on the other, soft and strong, and each measuring twenty-one feet long by ten inches broad, were purchased by us for three rupees, or less than six shillings. The dress of the men consists of a woollen cap, coat, trowsers, and a blanket, with grass sandals. The trowsers are made very long

and loose above the middle of the leg, where they fit tight, and the upper part, falling over this, descends to the ancle, and answers the purpose of stockings. Some wear tippets and coats of sheepskin, cured by simply rubbing between the hands: the wool is clipped short, and worn next the person. The women, in general, go bareheaded, but sometimes wear a circular shallow plate or cup of silver on the crown, having a loop in the lower edge on each side, through which a lock of hair is passed, and plaited over the top. The ends of their long tresses falling down their backs are collected under a square or circular piece of mother-of-pearl shell, from the lower edge of which depends a braid of three or four rows of beads, to the bottom of each of which a small bell is fastened. Sometimes a band of leather stuck with turquoises passes round the head, or a similar fillet gives support to strings of mother-of-pearl beads, and coral, depending on the forehead and below the ears. Lappets of leather, also set with turquoises, sometimes depend from the crown of the head, as low as the waist behind. The stones are large, but

ill shaped, and of a greenish hue, with many and deep flaws: they are brought, it is said, from the interior of Tartary. Amber beads, large, but of an inferior quality, form the favourite necklace: they are bought at Amritsar at so low a price that it is clear they cannot have come from Prussia. The women thus decorated are the wives of carriers, and as they march along with their sheep loaded with grain, they make almost as much jingle as the leader of the team of an English west country farmer. Both sexes carry little leather bags round their necks with amulets given them by the Lamas, and the women have large leather purses in which they carry needle-cases and other implements of female industry. The men are as fond of ornament as the women, and wear ear-rings, armlets, and necklaces. Every man carries a knife hanging from his girdle, and a chakmak, or steel for striking a light, fastened to his girdle also, by a chain, along with a leather pouch containing some vegetable tinder and a few pieces of quartz. The chakmak is of a peculiar and ornamental construction, and is an article of foreign import, selling for a

rupee, or if much decorated a rupee and a half. It might be supplied advantageously, I should think, from Britain, as might the knives and needles: as the latter are needed for coarse woollens only, they should be of a substantial size.*

On the 28th of August we departed from Tandí, and proceeded along the right bank of the Surajbhaga in a north-easterly direction. The road was stony and irregular. In general the interval between the bases of the mountains was almost wholly occupied by the bed of the river; but a small expanse near Beling, where we halted, afforded ground for cultivation, and for a grove of willows: one of these near my tent was sixteen feet in circumference. This tree is planted for the large head of croppings which it affords, and which are made up into faggots, and piled round the roofs of the houses as fire wood for the winter. Several of the

* Drawings and specimens of the chakmak were forwarded by Mr. Moorcroft to several of his friends in this country. Whether any manufacture or export of them was ever attempted is not known. They might, probably, be advantageously sent by the newly opened commercial channel of the Indus to the Panjab, and thence to Kulu and Ladakh.—Ed.

trees were hollow; for when it is discovered that decay has affected the wood, the interior is scooped out till little but the bark is left. In this state it not only throws out its branches at top, but I noticed in some of them branches descending from the head inside the tree, and taking root in the earth at its base. The people are careful to keep up these plantations.

Above Beling we crossed the Jo, a rivulet descending to the Surajbhaga, by a Sanga. On the left of our path we observed a sepulchral urn, larger than several we had previously noticed on the side of the mountain, above the place of our last encampment. The whole of this day's journey passed through a succession of villages, each containing from ten to twenty houses. The houses were of stone, two and three stories high, with flat roofs, well stored with faggots of willow and fir. Some had open virandas, others had them inclosed with wattles plastered with clay; the ascent from story to story was by moveable ladders of the notched stem of a pine; the lower story was left open for cattle, and an open space was appropri-

ated to the accumulation of manure. The disposition of the houses row above row on the steep sides of the mountains gave them the appearance of a broad flight of stairs, each lower row serving as a stepping-stone to the next above it. Near Sitigiri, where we halted, there was little herbage except stinking hyssop, abrotanum, artemisia, pimpernel, chenopodium, and sorrel. The dog rose was abundant, with a rich crop of scarlet hips. Gooseberry bushes of large size grew by the side of our road, covered with fruit little larger than grapes, and very acid, even when ripe. The orange-coloured currant was rather less common, but the fruit was not more palatable. In a farm I met with some apple trees bearing fruit, about the size of a pullet's egg; the apples were unripe and as sour, though not so austere as those of the wilding crab. The wheat, called here Tro, was mostly ripe; but the chief cultivation was that of the Awa Jao, or Siberian barley, here called Né, one ear of which was as heavy as two or three of the wheat. Buck-wheat, also, was in course of being gathered, which is done by pulling it up by the root. Although

the crop of this when standing appeared to cover the ground, yet after exposure for a few days the produce was scanty. The wheat crop would not be fit for cutting for three weeks.

A steep and broken path led from hence up the sides of the mountain for some way, and near the summit was a small flat called Silsila, which served as a resting place for the carriers. Rolls of sheep's wool, and bags of borax and satu from Ladakh, were piled up here in the form of a wall. Opposite to Silsila, on the left bank of the river, was the small town of Cherzoban; further on we passed through the village of Karung, opposite to which was Tinun, the largest town we had passed for some time. In front of it stood a conspicuously large and white sepulchre, and near it, at the foot of the mountain, was a flock of several thousand sheep and goats, which were returning to Kangra, after six months' pasturage in Lahoul. Hearing that the Sanga over the river which lay in our direct route to Ko-lang was broken, we descended to the Surajbhaga by an almost precipitous path, and crossed it by another plank bridge, where it was about thirty feet

broad, deep and rapid, but full of blocks of stone. We then ascended the left bank of the river, and encamped on a small plain near the fort of Ko-lang, belonging to Thakur Dharm Sinh, who is considered as the head man of the district. Strongholds were formerly necessary to check the predatory incursions of the Bhotias, but these have been for some time exchanged for peaceable and commercial intercourse.

On the morning of the 31st, when we were preparing to start, intimation was brought to me that the Thakur, Dharm Sinh, had been in bad health for some time, and wished me to prescribe for him: as the only way of doing this satisfactorily was to see the patient, I consented to wait until he could come to me, and accordingly remained till two o'clock, when he arrived. Notwithstanding his Hindu name he spoke not a word of Hindustani, and in figure and countenance was much more of a Tartar; his dress was in the usual style, but of better quality, and he wore a cap of black velvet faced with brocade, in the crown of which were stuck five or six large needles, two of them were of brass. Great deference

was paid him by the Lahoul carriers, who addressed him with the terms of Thakur and Raja. Whilst waiting for Dharm Sinh, numerous flocks of sheep and goats passed us on their way to Kangra and Chamba. The goats were generally white, the sheep were white, black, pied, and dun; they were in general well shaped, but the fleeces were less fine than I expected to have found them. Izzet Ullah purchased three wethers selected by him from the flock for four rupees, and I bought two for the same sum.

After prescribing for Dharm Sinh, who was labouring under inflammation of the chest, we resumed our journey, ascending and descending over rough and precipitous paths which would have been deemed impracticable by persons unaccustomed to mountain travelling. At the villages of Bugnad and Jisba, in the district of the latter name, the valley opened and presented a considerable tract of cultivation. On the right bank of the river opposite to Jisba we forded a rapid stream which escaped from a bed of snow upon our right, and rushed down its stony channel with such impetuosity as

threatened peril to our cattle at least. They waded through it, however, cautiously and securely. Many foals six months old traversed the torrent by the side of their dams. We encamped on a small plain where there was pasturage for our cattle.

We were detained all the 1st of September in discussing arrangements for the hire of our cattle, the carriers requiring to be here paid in full of their charge to Lé, on the plea that they were about to be called on for contributions to defray the expense of presents to the Brahmans in honour of the last Raja of Kulu, who died four years ago. Nama, the kanungo of Tandí, who had been directed to attend me to Ladakh, here joined us, and becoming responsible for the delivery of the property at Lé, I acceded to the demands of the carriers. We had an opportunity here of witnessing Tartar cookery on a more sumptuous scale than usual, but it was not of a character to invite a participation in the meal. A sheep belonging to some of the carriers having died in the night, the carcase was skinned and cut up, and boiled in a large cauldron, together with all the viscera

both of the chest and belly. Into the water also they threw cakes made of flour, mixed with the blood and small lumps of flesh.

Near our encampment grew abundance of the deep red variety of currant in full bearing, with large bunches of acid fruit full of stones, and thick skinned; the juice stained the fingers purple: juniper bushes and dwarf tamarisks were also numerous. During the last few days the red-billed and red-footed crow has been seen, and at this place the large Tartar raven made his appearance close to our tents.

Our march on the 2nd of September led down to a rough stony plain, bordering the left bank of the river. From a valley to the south descended the Gniun-thi Chu*, a deep and rapid river, said to rise from the northern face of the mountain above Koksar, which notwithstanding the distance we have come by the detour we have been obliged to make, is said to be not more than eight or nine

* Chu, or Chhu, is the Tibetan for river or water, and may therefore be dispensed with in the names of rivers. It occurs also in the names of places and districts, from their comprising some piece of water.—Ed.

kos off in a direct line. Several villages are situated near the debouche of the Gniun-thi. We encamped on the face of a mountain beyond one of those called Labrang, in the district of Dar-cha, having marched only a kos and a half, in consequence of the ruggedness of the road.

About a mile from the point where the Gniun-thi falls into the Suraj-bhaga, the latter divides into two branches, or to speak more accurately, is formed by two rivers. The one on our right, along which lies our road, is the Dar-cha Sum-do, coming from the north*. The other on our left, which is something larger, flows from the west of north, rising, it is said, in the Zanskar mountains, about three days' journey distant.

The village of Labrang† is the last in the Raj of Kulu, and the last that occurs on the

* Sum-do implies a conflux or the three points of land round the meeting of two rivers.—Ed.

† According to information subsequently received by Mr. Trebeck, this village should be rather named Dar-cha as well as the district. Labrang he places more to the north-west. Mr. Gerard also calls the last village of Lahoul, Dar-cha; according to him it has an elevation of eleven thousand feet.—*Asiat. Journ.* N. S. vol. v. p. 90. Gholam Hyder also calls this place Darsah.—*Asiat. Journ.* N. S. vol. xviii. p. 174.

road for several days' journey. Near it were a number of cypresses much decayed, and many quite dead. Some of my people had begun to strip them of their dry branches for fuel, when one of the conductors of our caravan came to me in great agitation, and implored me to command them to desist. The trees he said were sacred to the deities of the elements, who would be sure to revenge any injury done to them by visiting the neighbourhood with heavy and untimely snow. He promised that fire-wood should be supplied if the trees were spared, and this condition was fulfilled. On the tops of some of the houses I observed piles of horns looking like chimneys, decorated with branches of cypress. Although these also were dedicated to local divinities I purchased a pair; they seemed to me to be the horns of the ibex.

The road to Ladakh formerly followed the southern bank of the Zanskar river for some way, and then crossing it by a sanga, proceeded along the Dar-cha river. This route has been obstructed for some years by the gradual subsidence of a mountain, which was still in progress, and which we had therefore

an opportunity of witnessing. About two-thirds up the acclivity of a mountain, about half a mile distant, a little dust was from time to time seen to arise; this presently increased, until an immense cloud spread over and concealed the summit, whilst from underneath it huge blocks of stone were seen rolling and tumbling down the steep. Some of these buried themselves in the ground at the foot of the perpendicular face of the cliff; some slid along the rubbish of previous debris, grinding it to powder, and marking their descent by a line of dust; some bounded along with great velocity and plunged into the river, scattering its waters about in spray. A noise like the pealing of artillery accompanied every considerable fall. In the intervals of a slip, and when the dust was dispersed, the face of the descent was seen broken into ravines, or scored with deep channels, and blackened as if with moisture. About half a mile beyond, and considerably higher than the crumbling mountain, was another whose top was tufted with snow. It was surrounded by others lower and of a more friable nature. It appeared to me that

the melting of the snows on the principal mountain, and the want of a sufficient vent for the water, was the cause of the rapid decay of the mountains which surrounded it; for the water which in the summer lodges in the fissures and clefts of the latter, becomes frozen again in winter, and in its expansion tears to pieces the surrounding and superincumbent rock. Again, melting in the summer it percolates through the loosened soil, and undermining projecting portions of the rock, precipitates them into the valley. As, however, rubbish accumulates on the face and at the foot of the mountain, a fresh barrier and buttress are formed, and the work of destruction is arrested for a season.

A sanga across the Dar-cha river placed us on its left bank, along which the road lay. The lower and middle parts of the rocks were clothed with a scanty vegetation, but the summits were bare, or were covered with snow. Occasionally the path lay over beds of snow; occasionally small plains of herbage occurred, the usual halting-places of the shepherds. Many small streams, some stealing from beneath the snow, and some burst-

ing out of the sides of the mountains, supplied the river; and in one place a mass of snow which had fallen into the river occupied its bed, and afforded us a bridge by which we crossed to the right bank, to the old road to Ladakh. This again descended to the river; further on were some planks laid from projections in the rocks, which afforded us the means of repassing to the left bank. On the 4th we passed the junction of the two rivers which form the Dar-cha river; one of these, the Chukam, we followed, the other, the Kakthi, is said to come from the snows, about two kos to the north-west. Our path lay over vast slips of rock along a narrow valley, shut in by high and barren mountains, and offering no vestige of villages or cultivation. On the night of the 4th it froze hard where we were encamped.

Soon after starting on the 5th, we forded the Chukam, and continued to ascend the valley, in which the only signs of life were now and then a tailless rat, the red-tailed lark, and a species of hoopoo. At a distance of about four miles the river was formed of two branches, the one on the right hand

rising from snow about one thousand paces south. Although now the most considerable of the two it is said to be dry in winter. Following the other branch we soon came to a place where it issued from the middle of a natural dike, which filled up the space at the foot of two mountains, ascending to the summit of which we beheld a basin of clear water of a deep green hue about a mile in circumference. This small lake, also called the Chukam, collects the water from the surrounding heights, and may be regarded as the source of the Suraj-bhaga portion of the Chinab*. From the lake we ascended a steep pass that led over the rounded back of a part of the Bara Lacha ridge†. According to barometrical measurement we had attained here

* Mr. Gerard also regards this as the source of the Suraj-bhaga, and makes its elevation sixteen thousand two hundred feet.—Ed.

† Mr. Gerard calls this the Paralassa chain, and makes its elevation also sixteen thousand five hundred feet: the range which he calls Lachha, he estimates at more than seventeen thousand feet. The proper denomination, if it has any, of this pass, is probably given by neither traveller; for La-tsa or La-sa, means any pass in a mountain, or the foot of a pass, and Ba-ra, between. Bara-la-tsa is therefore a mountain ridge or pass 'between' two districts. According to Gholam Hyder, many of the party experienced severe headaches in crossing this elevation.—Ed.

an elevation of sixteen thousand five hundred feet. Some of the peaks about us were apparently one thousand feet higher. On all the great slopes and crests of the chain the snow lay in vast undisturbed masses. The summit of the pass was tolerably level. Immediately on crossing it we came to a pile of loose stones, formed by the contributions of travellers, and decorated with bits of wool and rags, and a piece of cloth with an inscription in printed letters. On the right of the road was a plain of at least two miles in extent, skirted by a rivulet, which appeared to rise at no great distance to the south-east. The soil on and near the pass was swampy and soft, and strewed with fragments of rock or small stones, which although dry on the upper surface were immersed in water, and gave way when stepped upon. In some places long flat stones were deposited for a considerable extent, and, until terminated by a declivity, in a direction perfectly parallel, forming a gutter or drain as regular as if it had been constructed by the hand of man, a very unlikely thing, however, in such a situation, and originating, no doubt, in the

direction taken by snow streams from the mountain.

After crossing the plain we followed the left bank of the stream by a rugged path, crossing ruins of rock covered with a saline efflorescence. The river opened suddenly upon its left into a lake about three miles round, called the Yu-nam. Not a weed deformed nor a wave ruffled its pellucid and tranquil waters: there seemed to be no fish in it, nor was any bird or even a fly in its vicinity. I was told that it had been more extensive, but had been contracted by the falling into it of masses of rock: except on its edge no stones were visible. The river that had fallen into the lake re-issued from it, and was thence called the Yu-nam river. Where it first quitted the lake it worked its way through mounds of cream-coloured clay at the foot of perpendicular cliffs: the clay was of great purity.

Rising from the river the road wound through large masses of micaceous schistus, which had fallen from the rocks on our left, whilst a tract of several acres upon our right was strewn with large irregular fragments of

a reddish coloured sandstone, of a variety of shape and disposition of which it is impossible to convey an idea. I was informed that these wrecks were the effect of an earthquake, and nothing short of some mighty throe, which had upheaved and shattered a whole mountain, could account for such a scene of fantastic ruin. We again descended to the river, and, having forded it, remained a day on its banks to rest our people and cattle. Many of the former had suffered much from exposure and fatigue. The sun for a few hours was intensely hot, whilst the wind blew piercingly cold from the snow-clad peaks of the Bara Lacha mountains. I braved the blast in the same habiliments I had been accustomed to wear, but I had some pain in my head, my face was almost stripped of skin, and my lips were shrivelled and cracked. Many of the people were in the same state, and some were attacked with fever. Fuel was scarce, but a halt was desirable at this spot, as there was some pasturage for the cattle in the vicinity.

The road at starting on the 7th led over an ascent to a plain, scattered over which were

many large mounds of sandstone and fragments of rock: they were mostly from thirty to fifty feet high, and were so distant from the mountains on either side that it was impossible to suppose that they had rolled so far. They were, in general, oval or rounded at their summits, and sloped gradually down to a broad base, and might in any other position have been thought artificial tumuli. It seems more probable that they are the harder fragments of a mass from which the softer portions, the clay and sand, have been removed by gradual decomposition. Several plains occurred in this day's march, covered, it seemed, on first approach, with herbage, but this proved to be a kind of furze common in Tibet. On the left bank of the river were many columnar projections of pebbles conglomerated by sand and clay, resting on bases of sand projecting into the river. In the river bed pebbles were found agglutinated by a calcareous earth; and the water was hard. Since we descended from the ghat the mountains have much diminished in height, and their texture is less compact. Some of them still present bold and perpen-

dicular faces, which are stratified, and are diversified in tint as well as outline; but from the rough and jagged brows of others descend sandy slopes in a plane gently inclined to their bases. The general character of the rocks in this neighbourhood I should conceive to be sandstone tinted yellowish by iron, and veined by some harder mineral. The plains are almost barren, and have very little water, as the snow runs off fast into the river: such scanty pasturage as they afford, however, is very grateful to the sheep, and is apparently wholesome. A high, square, and insulated rock in the middle of one of these plains divided into two portions by the river, constituted the boundary mark between the states of Kulu and Ladakh. It is called Ling-tí by the people of Kulu, and by those of Ladakh Fa-lung-dinda. Other landmarks of a similar kind were observable across the river. Beyond this a river from the west, said to rise in the district of Zanskar, almost as large as the Yu-nam, joined the latter. We were told that at this season the plains are generally covered with flocks, but that our approach had excited so much alarm

that the cattle had been withdrawn: we met with some sheep, however, on their way from Bhot, laden principally with borax.

On the 8th we forded the Tserab river, which comes from the mountains east by south, and falls into the Yu-nam, which then takes the name of Sar, or Ling-tí. The source of the Tserab is not likely to be more than twenty miles remote. The bed and banks are formed of pebbles united by clay and sand and some stalactitic matter, and on the banks rise pillars like those formerly observed. On the bank of a watercourse farther on, two such insulated columns of pebbly conglomerate were met with, on the summit of one of which rested a block of stone many tons in weight, and upon the top of the other stood a smaller block nearly on a point.

We were detained on the 9th by our horses having strayed in quest of pasture, and resumed our route only late on the 10th, proceeding along the right bank of the Ling-tí until it diverged to the westward, proceeding towards the Zanskar river. The road then led by zig-zag paths up the steep ascent of

the Lacha or Lacha-lung* pass, and after crossing it continued over rough undulating ground intersected by rivulets and water-courses. On our way we met with a party of Lahouli Tartars, with about a hundred horses, returning from Lé, whither they had carried the goods of a Kashmiri trader. Most of the cattle had been overloaded, and were bruised and wounded in the withers. Part of the road lay along the left bank of a rivulet coming from the north and running east: this was occasionally obstructed by falls from the mountain. On the left, at a few hundred feet from it, stood an insulated sugar-loaf mass of rock above three hundred feet high, the base of which was loose and pebbly, and in a state of decomposition which threatened to bring down the whole superincumbent heap at no distant period. In another place the road ran for about ten yards between a detached pillar on the edge of the stream and the solid rock, and was not wider than sufficed for the passage of a man on horse-back. A tortuous and difficult tract then led to an eminence where, although neither

* La-tsa as before, a pass, and Lung-or Lung-pa a valley.—Ed.

water nor fuel was procurable, we were obliged to halt. We had been nine hours on the road, the sun was about to set, the wind was piercingly cold, and some of the party were still considerably behind, not joining us indeed until ten.

On the following day we proceeded along the left bank of the rivulet. The cliffs forming its right bank were apparently at their summits of compact sand, but their faces were decorated with projections more or less irregular and grotesque, resembling towers, columns, and spires, and repeatedly mistaken by us at a distance for a temple or a castle. Caverns apparently of great capacity, high up in the rock, penetrated into its interior, and from the mouths of some of them streams of fine sand were trickling like water. The rock was in some places of a black colour, veined apparently with quartz: in others it was stratified, and consisted chiefly of clay slate. Proceeding along the rivulet, after crossing to its right bank, the road came to a plain, along the borders of which two streams meeting with that which we have accompanied formed the Sum-ghi-el, or Three

Spring river. Following its right bank we came upon a party of men, women, and children, some from Chamba, some from Kangra, and some from Lassa, carrying borax from Ladakh. A couple of rugged ascents brought us to the extensive plain of Kiung, which is about two miles in breadth, but considerably longer, forming a valley bounded by low mountains, with sloping sides and flattish summits. We halted in a small cavity, after a march of about four miles over the plain, and our tents were scarcely pitched when a piercing wind and heavy fall of snow came on.

The march of the 12th continued along the plain; there was some pasture upon it, but very little water. In one place were two or three pools, surrounded by an extensive bed of sand, from the upper part of which issued a mirage resembling waves. The valley is said to be frequented by wild sheep, and some of their horns of immense size, but injured by exposure, bore evidence of the fact. Shortly after reaching Ruk-chu, a shepherd's station, near the end of the valley, where we halted, a small party of Ladakhis came to my tent,

one of whom saluted me in the Mohammedan fashion, and said he was there upon the Raja's business, but that he was going to a village three kos off, where he would wait for us. We remained at Ruk-chu for two days, during which Mr. Trebeck and myself shot a few hares; they were of a bluish-white colour, and were not much larger than English rabbits.

We moved along the rest of the valley on the 15th, and on the 16th crossed the ghat of Tung-lung. The pass was about seven hundred feet above the plain; from its top the horizon was beheld everywhere skirted with sharp-peaked mountains capped with snow; the snow-clouds were distinctly observable, travelling from peak to peak, or throwing out processes towards them, as attracted by each, and showering down a portion of their contents: lightened by the discharge, they then rose and floated in the air, until they again accumulated, and were again attracted within the sphere of the crest of the mountain. From the ghat the road descended rapidly, and was marked by a rivulet, which rose on the northern slope of the pass, and in the bed of which

we noticed blocks of green granite, a stone not found in the mountains we had passed. We halted in the evening at a shepherd's station, not far from the village of Rumchu, in advance, the first abode of man we had seen for fourteen days: our first intercourse with our kind was not of very favourable augury. The villagers refused to supply some people I sent to purchase it with firewood, and when I repeated my application I was informed they had deserted their houses. We were therefore obliged to be contented with the scanty stock we had on hand.

On the morning of the 17th of September we passed the village, which consisted of a few stone houses, and was surrounded by fields of Siberian barley, laid out in patches, enclosed by low stone walls, and well watered by means of stone channels conducted from rivulets at some distance. The village belonged to priests, some of whom I saw in the fields, and beckoned to them to approach. An old man advanced, and presented me with a handful of ears of corn. The road, crossing a rivulet of clear water, came to two large white sepulchral buildings:

they were about twenty-five feet high: a square turret stood upon a base of several steps, and terminated in a similar series of steps, on the summit of which was a large urn, ornamented with sculpture: the upper part was rounded, and a pole, above six feet long, projected from the top. Along the road, in several parts, extended stone walls, intended, apparently, as defences. As we advanced, the water of the rivulet was discoloured by red earth. At a short distance from its left bank, at a sharp turn in the road, the town of Giah came in view. At the suggestion of the chief carrier, I consented to pitch my tents here, until a communication with the officers of the Ladakh government, who I understood were in Giah, could be effected, and arrangements made for my advance to the capital.

PART II.

RESIDENCE IN LADAKH.

CHAPTER I.

Meeting with Abdul Latif—Visit of Mir Izzet Ullah to the authorities—Audience of the Raja and Khaga Tan-zin—Buttered and salted Tea—Visit of the Raja—Journey resumed—Praying Cylinder—Letter from the Khalun prohibiting advance—Rocks—Action of the Weather—Sinh Kha bab, or Indus—Village of Marsilla—Head Lama—Cardinal's Hat—Old Telescope—Villages of Changa—Thik-se—Gompha—Meeting with Khaja Shah Nyas—His History—His friendly interposition—Valley of Chu-shut—Entrance into Lé—Monuments—Apprehensions of the Khalun—Public Audience—Audience Chamber—Europeans on the Frontier—Caravans from Lassa and Yarkand—Communications with Shah Nyas and Izzet Ullah—Proposed Commercial Treaty—Delays—Reference to Gardokh—To Lassa—Treaty concluded.

On the evening of the 17th of September the person whom we had met at Rum-chu again made his appearance, and, in conversation with Mir Izzet Ullah, informed him that his name was Abdul Latif, a pupil of a celebrated

Pirzada, or holy man, Shah Nyas Khan, who was a friend of Izzet Ullah's, and was now residing in Lé. Abdul Latif availed himself of this connexion to inquire confidentially of the Mir, what were our real character and purposes, and being satisfied on these points, engaged to conduct him on the following day to the Raja of Giah, and the Khaga Tan-zin, the brother-in-law of the Khalun, or chief Vazir of Ladakh. Accordingly, on the morning of the 18th, Mir Izzet Ullah went to the city, and had an interview with those officers. They seemed to be tolerably well informed of the extent of the British power, and of our relations with the Sikh ruler, and very suspicious of the real object of my journey. Satisfied, however, apparently, by the strenuous declarations of my representative, and by the letters from the Raja of Kangra, and Vazir of Kulu, as well as those to the governor of Kashmir from Najib Sinh, that my purposes were strictly mercantile, and that no harm was likely to accrue to Ladakh from my presence, they promised to write a favourable report to Lé, and appointed the following morning to receive my visit.

On the morning of the 19th, accompanied by Mr. Trebeck, Mir Izzet Ullah, and his son, I rode to the Raja's dwelling; it was situated at the end of the town, and the access to it was along a stony and narrow path, between low flat-roofed houses on the right hand, and a walled enclosure for cattle on the left. The town was of small extent, and thinly peopled. After entering a court-yard, we passed through a dark doorway, and ascended a steep stone staircase, feeling, not seeing our way to an open gallery, on one side of which were several doors. In one of the apartments to which they led, we found the Raja, sitting on one of two chairs which I had sent for the occasion, and the Khaga Tan-zin on a camp-stool: on the side of the room opposite to the Raja was placed the chair intended for me. When I had taken my seat, the Raja made some civil inquiries in Tibetan, through Abdul Latif, who explained them in Kashmir Persian to Izzet Ullah, who interpreted to me, regarding our journey, and he expressed his hope that we had not suffered any inconvenience from the weather, or the ruggedness of the way. A moderately-large

tea-pot, of gilt copper, and of beautiful workmanship, was brought in, and salted and buttered tea, without milk, handed to the company. The Raja took out of a breast-pocket, or pouch, his own tea-cup of yellow china. The Khaga Tan-zin also produced his, of chestnut-wood, mounted with silver. We had come provided with our own cups. The tea was not very strong, and tasted like weak broth. After some conversation on indifferent topics I took leave, and invited my hosts to my tent in the course of the day, which invitation they accepted.

The chamber in which the interview took place was sufficiently spacious but low; it contained little furniture; the principal article was a small wooden temple with two figures, one wholly covered, the other having the face exposed. The wall near where the Raja sat was covered with pictures of figures in attitudes of devotion.

About an hour after our return, the Raja and the Khaga Tan-zin arrived at our tents, and were received with suitable attention. Tea was served, with the accompaniments of milk and sugar; the chiefs partook of the former, but

declined the latter. A glass of noyau was then offered them: the Khaga Tan-zin only ventured to sip his; the Raja emptied half the glass, and would probably have taken the whole, had he not been deterred by the temperance of his companion. The attendants requested the residue of the two glasses, which pleased them so well that they solicited a little more, and drank it out of the palms of their hands, expressing their satisfaction by gestures and smacking their lips. I made some presents of red and blue cloth to the two principals, who departed, to all appearance, in a very friendly mood towards me. The Raja sent a supply of satu with a sheep and a goat. In the evening some persons were deputed by the Raja to inspect our merchandise, that the frontier duties might be levied; and some difference of estimate as to the quantity occurring, he declared that he would forego the duties at present, as means for verifying the weight of the bales were not at hand, and would be satisfied with what it might prove to be when we arrived at the capital. The Raja, whose name was Tsimma Panchik, was a short stout man, about fifty.

Tan-zin was of similar person, but some years younger.

On the 20th we proceeded along the left bank of the Giah rivulet. Opposite to the town, on a lofty ridge of rocks, was a large pile of houses, formerly inhabited by the Raja; and lower down, one belonging to the Lama. On a stream, falling into the rivulet, was a small stone building, which at first view appeared to be a water-mill, but which proved to be a religious cylinder, carved and painted, and turned round by the current. Close to the road were several monumental urns, with figures and flowers sculptured on their pedestals. The banks of the river, on each side, were high and rugged, and consisted of a kind of pudding-stone; in its compact state, the prevailing colour was red, but when detached, it consisted of pebbles and of soil of a great variety of hues. We passed a small hamlet on our left, called La-tu, and then entered a finely-cultivated valley, in which stood the town of Mi-ru. We encamped near it in a plantation of poplars. Here the Khaga Tan-zin informed me he had received a letter from the Vazir, desiring us to

take another road to Yarkand, through Nobra, as the small-pox, he said, was in some of the villages on our route to Lé, and we might, by passing through them, bring the infection with us to the capital. This intimation was equally unexpected and unpalatable. The Khaga Tan-zin, however, and Abdul Latif, recommended us to address the Khalun, and urge him to reconsider the matter, and the former promised to write to him to the same effect, recommending us, in the mean time, to press forward. Mir Izzet Ullah wrote to Shah Nyas to urge him to use his influence in our favour, and Abdul Latif took our dispatches, and engaged to exert himself personally in procuring us a favourable reception.

We therefore continued our journey on the 21st, still following the course of the rivulet. Great labour and ingenuity had been bestowed upon the road, which crossed the river repeatedly, whenever the path along the bank became dangerous or difficult. The character of the rocks continued the same; but in the first part of the road they were much intersected with veins of quartz, and studded with

glittering and transparent points of rock crystal. Farther on they were scooped out into deep furrows, divided by parallel projections, looking like low walls, running from the level of the water to the summit of the rock, and forming, as it were, avenues artificially constructed, descending to the brink of the river. These, of course, are the harder parts of the rock, from betwixt which the softer portions have been washed down by the snow. Even the harder parts, however, seem to be readily affected by the weather; for, although on blocks recently detached, or on surfaces sheltered from snow, the pebbly matter was left projecting, offering a rugged and uneven face, yet blocks that had been long separated had their exposed superficies, when it was either perpendicular or sloping, so as to afford no lodgment to wet, as smooth and uniform as if it had been polished by a mason. At the town of Uk-shi, the rivulet of Giah fell into a deep river, about fifty yards in breadth. This was the river of Lé, the Yuma, or Sinh Kha bab, which may be considered as the main branch of the Indus, flowing from the province of Gardokh. Uk-shi consists of not more than ten or a dozen

houses, tolerably well built, and having walled gardens.

We were on horseback at an early hour that we might approach as near to Lé as possible before replies to our application for permission to advance could be received. The road lay along the left bank of the Yuma, over a high and uncultivated plain, enclosed on every side by mountains, the tops of which were covered with snow, now falling in long dark pillars upon many of the peaks. After proceeding along the plain for some distance, the road descended to the bed of the river, at the foot of a ridge of high cliffs, the usual conglomerate resting on compact sandstone. On again ascending, the eye was delighted by the sight of an enclosure of poplar trees, which at the distance of two miles looked like the belt of a park: on a nearer approach several of these belts were seen connected with villages and with corn fields interspersed. After crossing a watercourse which led to the left bank of the river, and from which different trunks carried water for irrigation over the adjacent grounds, I was met by a servant of the Khaga Tan-zin, and con-

ducted to an enclosure, where we were directed to pitch our tents: no answer had yet arrived, and appearances were unpromising. The chief of Marsilla, the neighbouring village, was a Lama, and the spiritual guide of the Khalun, and principal municipal officer in this part of the country. I thought it advisable therefore to pay him a visit, and propitiate him by a suitable present. Before we set out the Lama rode past the tents, attended by two servants on horseback: he was of a portly presence, about forty, and was clad in a crimson cloth dress, with a low-crowned, broad-brimmed hat, like a cardinal's, covered with red cloth, tied under the chin, and bound with a band of broad riband, the ends of which floated loose behind; it was also decorated with two white cords and tassels of white silk: his attendants wore similar hats, but plain. On repairing to his habitation we were received by a Gelum, and conducted to the apartment of the Lama: he received us very courteously, gave us salted tea, and placed before us a quantity of apples, rice, and flour. Our intercourse was rather imperfect, but it seemed to have the

effect of securing his favourable opinion of us, and of our intentions. We found in his possession an old telescope, made by Pyefinch, London. The Lama said it had belonged to the great Lama, by whom it was given to one of his predecessors. It may have found its way to Lassa perhaps on the occasion of the mission sent by Warren Hastings to Tibet. The village of Marsilla consisted of some very good houses, the exterior of which was very neat and clean: the cultivated lands round it were very extensive, and were well supplied with water. Opposite to Marsilla, on the right bank of the river, stood the village of Chumri, amidst lands equally well laid out and cultivated. Upon our return to our tents we were joined by Abdul Latif, who brought letters from the Vazir, which permitted our advance, and dispelled all doubts of the reception which awaited us at Lé.

Our road next day proceeded over the cultivated lands of the village of Changa, which were irrigated by a watercourse from the rivulet which divides the grounds of Marsilla. As the fields of Changa have a considerably

lower level than the aqueduct, it becomes necessary to adopt some contrivance for retarding the current; and this is done by the interposition of corn mills worked by the stream. Between Marsilla and Changa we passed two temples, with houses of the Gelums adjoining; one on the right bank of the river, and one on the left, but farther off, and near the foot of the mountains. Beyond Changa we crossed a plain, and then came to the lands of other villages, the chief of which were Takna and Mashu. On an eminence stood a building that was considered as a sort of fortress, and several houses extended from it to the west; over the plain beneath, other houses were erected, rather in a straggling position. The Yuma river separated these lands on the left bank from the small towns of Thik-se and Gompha on its right; the houses of the latter rose in stages up the face of a height: it was inhabited, it was said, by great numbers of Gelums, and of the relations of the Raja. Opposite to the eastern end of Thik-se began the extensive valley of Chu-shut, covered with villages and farm-houses; the dwellings with their roofs, co-

vered with a thick pile of firewood, and dry lucerne, whitewashed walls, and balconies attached, presented a neat and comfortable appearance. We were here met by a servant of Khaja Shah Nyas, who resided at Sheh, a town on the right bank of the river, and who expressed a wish to see us. We crossed two branches of the stream, and on an island between the second and a third branch we found the Khaja in a tent, which he had had pitched for our meeting.

The grandfather of Khaja Shah Nyas, Khaja Mohammed Yusef, who was descended from a branch of the same family as the Emperor Baber, was the hereditary ruler of Tashkend: his son Khaja Abd-ur-rahim went during his father's lifetime on a pilgrimage to Mecca, and extended his travels to Constantinople, returning by way of Hindustan: he was received with kindness by Kamar-ud-din Khan, the celebrated Vazir of Mohammed Shah, and by Mir Manu, the governor of Lahore; the latter persuaded him to remain in his district, and gave him the town of Imad-abad for his support.

When the invasions of Ahmed Shah, the

Afghan, had thrown the Panjab into confusion, Khaja Abd-ur-rahim repaired to his native country, where his father had died, and the principality was occupied by Unas Khaja, his sister's son. Unwilling, or perhaps unable, to raise a party in his favour, he withdrew to Kashmir, and died there at a very advanced age, in high esteem for his learning and piety. His son, Khaja Shah Nyas, succeeded to his reputation, and obtained from the Afghan governors of Kashmir very extensive and valuable grants of land, the revenues of which were chiefly appropriated by him to acts of charity and benevolence. Upon the conquest of Kashmir by Ranjit Sinh, the jagirs of the Khaja were confiscated, and his personal safety was endangered, so that he held it expedient to seek an asylum in some neighbouring region. He has, for the present, established himself in Ladakh, but the Mohammedans of Yarkand are desirous of his taking up his abode with them, and Mohammed Yar Khan has offered him a considerable jagir in Kabul.

We found the Khaja a man of about sixty years of age, short and stout, with a pleasing

expression of countenance, although his features were Uzbek. He had a large turban on his head, and was dressed in a wrapper of brown cloth lined with chintz. Soon after we were seated a repast was placed before us of salted tea, wheaten cakes, Yarkand biscuits, apples and apricots of Ladakh, and grapes from Kashmir. He told us that the persons most adverse to our reception were the Kashmir traders, who apprehended we should interfere with their shawl wool traffic, and would, therefore, oppose every possible impediment to our journey: he had incurred great disgrace with them, he said, on our account, as they accused him of having invited us to Ladakh: he had been consulted by the Khalun, he informed us, as to what measures should be adopted when our approach was first heard of, and had told him that if we were really coming as foes, opposition would be fruitless, and if as friends, it would be discreditable to the government, and unjust towards us: that a refusal to allow us to proceed should have been intimated before we crossed the frontier; and that the best plan now would be, not only to permit our ad-

vance, but to treat us civilly; and that the minister might feel assured we were what we professed to be, inoffensive travellers and merchants. I was much pleased with the earnestness with which our new friend recapitulated the heads of this discussion, and with the apparent frankness and cordiality of his manners. After a short time I took leave of our host. Mir Izzet Ullah remained with his ancient friend.

Our route lay along the Valley of Chu-shut, the crops in which were cut, and the straw was piled in cones: the chief labourers in the fields were women: the men, when not busy at the thrashing-floor, were smoking and lounging about. We crossed the river by a bridge, and encamped on its right bank.

On the 24th the Mir and Abdul Latif set off early to prepare our lodgings in the city, and Mr. Trebeck and myself followed at noon. The road led over a sandy ascent wholly destitute of vegetation, between two low ranges of barren rock. On turning a narrow defile, by the side of a pile of stones, it came to two large sepulchral towers, connected by a pile of stones a thousand paces

long. We next came to a second pile, still longer, uniting two smaller towers, on the square sides of which was sculptured, in relief, the figure of an enormous quadruped of mythological invention, the head and breast of which something resembled those of a lion, except that the mouth was armed with tusks. Some of the monuments we have seen have been surmounted by a large urn, something resembling an earthen oil jar; others by a conical pillar of burnt brick. The urns had always a pole projecting above them: the pillars were crowned by double coronets of gilt copper. The upper coronet was the smallest, and had its largest circumference upwards, whilst the reverse was the case with that below. In the bowl of the upper one rose a crescent, in the concave part of which was a circle with flat sides like a cheese on its edge, with a figure like a pear having its stalk upwards, on its upper edge: these ornaments were of copper or brass, gilt. At Marsilla a piece of rock crystal was stuck into the centre of the flattened sphere, and wires projected from the horns of the crescent and stalk of the pear. These

lines of wall were the avenues to the town, in the streets of which we found ourselves presently after passing the second pile. The streets were crowded with people to see the entrance of the Firingis, and in the groups were mingled the good-humoured faces of the Ladakhis, and the sullen and designing countenances of the Kashmiris, the high bonnets of Yarkand, and the bare heads of the Lamas, with the long lappets and astonished looks of the women. The Khalun had ordered a house of his own to be prepared for us, which was sufficiently spacious to accommodate our whole party and our baggage, and which, although of rude fabric, was a palace to persons who had been so long exposed in tents, and those the worse for wear, to every blast of wind, and frequent visitations of snow and rain.

On the second day after our arrival Mir Izzet Ullah waited upon the Khalun, and, according to the Mir's report, the conference afforded a curious picture of the feelings and opinions prevalent in this part of the world regarding the British power in India: it was evident that the mind of the Khalun was

preoccupied with distrust of our professions and apprehensions of injury, either political or commercial, to the interests of Ladakh: indeed he confessed as much, and remarked that he had been told it was the practice of the English to appear at first in the guise of merchants, merely to gain a footing in the country, and that, having effected this, they speedily brought it under their authority. The Mir laboured especially to remove the impression that the British government entertained any designs against the independence of Ladakh, and we were fortunately able to produce some evidence to this effect which seemed to have great weight with the Khalun; a letter from Mohammed Azim to Mir Izzet Ullah, intimating a tender of allegiance for Kashmir, which he wished the Mir to convey to the Resident at Delhi: he had, however, under my directions, declined becoming a party to the negotiation. If any secret purpose against Ladakh had been within our views this would have been the readiest mode of accomplishing it, as the occupation of Ladakh would at once have followed the possession of Kashmir.

Leaving the Khalun to consider the question maturely, we remained quiet in our mansion until the 1st of October, when we were summoned to an interview. The streets were, as before, lined with spectators, and both Ladakhis and Kashmiris saluted us civilly as we passed. After threading some narrow passages we entered a court-yard, where we dismounted. A band of music struck up as we entered. We then ascended two flights of stairs to an ante-chamber full of attendants, where the Khaga Tan-zin met me, and taking my right hand led me into the audience chamber. The Khalun was seated on some cushions at the further end of the room, on the left of a window; and on his left sat two other persons, one of whom was the Núna, or deputy Khalun. As I advanced to him he put out his hands, took mine between them, and slightly bowed. I then took my place on a chair placed opposite to him, and a conversation chiefly complimentary ensued. He inquired after our health, hoped we had not suffered from the cold, asked our ages, our country, its situation and distance, the name of the king,

whether we were on terms of friendship with the Vrús (Russians), Kathás (Chinese), and Ranjit Sinh, whether we had ever visited Rúm (Constantinople). Speaking of the small-pox, which had been lately prevalent, I endeavoured to explain to him the advantages of vaccination, and recommended its introduction. The Khalun replied at great length, and with much animation. The interpreter evidently compressed his reply, but the purport seemed to have been a reluctance to change old customs for new. We were then served with salted tea, which was distributed to every person present, and after making our presents took our leave. The Khalun and his two friends shook hands with us, and the former expressed a hope that he should soon see us again.

The Khalun, or chief minister of Ladakh, whose name is Tsiva Tandu, appeared to be about sixty. He had lost most of his teeth, was thin, and of middle stature, with a countenance expressive of shrewdness; he was plainly dressed, in a loose brown wrapper and velvet cap, without any ornament. During the interview he smoked a hukka, small, but

richly decorated. The other two persons were much more splendidly apparelled. The audience-chamber was a long, low-roofed apartment; the roof was carved and painted green and vermilion, and was supported by two rows of wooden pillars, painted red and varnished, and having capitals carved with flowers and foliage of green and gold; round the shafts letters were suspended by cords; a deep cornice of foliage, intermixed with grotesque figures, extended round the room; and below this the walls were hung with Tatar bows and arrows, shields, swords, and matchlocks. The walls were panelled, and each panel was painted in the Chinese style. One side of the room was chiefly filled by a large window, without glass, but partly screened by a curtain of pink brocade. Over the head of the Khalun, a small canopy, covered with a kind of stuff, in which the Dragon of China was conspicuous, was suspended from the ceiling. On the wall, above and behind him, was a large square of patchwork, like a chequer-board, and on each square was worked a letter or word in Tibetan characters. On his right hung a picture of

a female divinity, with a green face and red eyes, sitting cross-legged on the cup of a flower. In front of the Khalun and his companions stood a low table or stool on a carved stand. In front of this a narrow Persian carpet, of great beauty, extended nearly the whole length of the room, on which sat the Khaga Tan-zin, and felts and long cushions were distributed about for the attendants. We had chairs placed upon felts. Where the floor was seen, it was of plaster of a chocolate colour, and appeared to have been lately polished. A few painted Chinese chests were arranged along the left side of the room. Small red perfumed tapers were burning on the bench in front of the Khalun, and in various parts of the chamber.

The absence of the Khalun for three days delayed the repetition of our intercourse, and in the interval we heard of the arrival of an express from the Garpan of Gardokh, with information that a European, who had attempted to enter that district, had been compelled to retire. Advices were also received from Undela, that a European had arrived there, with an intention of entering into La-

dakh, but had been stopped until orders could be received from the superior authorities. These accounts probably related to the movements of Mr. Gerard, who had some time before apprised me of his intention to follow the Setlej, if permitted, to its source, and then return and join me in Ladakh. On the 5th, the Khalun returned, and sent for Mir Izzet Ullah, with whom he entered into friendly and confidential communication. He confessed that the Kashmiris had endeavoured to prejudice him against us, and prevail on him to prevent our coming to Lé; but, he added, he was very well pleased he had not listened to their suggestions.

For some days after this nothing of any interest occurred. We were occupied in our domestic and mercantile arrangements, and making inquiries necessary for our onward journey to Yarkand. In the course of October, a caravan of Chabbas, as they are termed, traders from Lassa, arrived, with many yaks laden with tea, also a caravan from Yarkand, of twenty-five horses, with shawl-wool, felts, tea, and silks. The latter was the first arrival from Yarkand for many months, and its un-

usual delay had excited great anxiety amongst the Kashmiris. Some disputes, it was known, had arisen between Omar Khan, the ruler of Ferghana and the Chinese authorities at Yarkand, and it was feared that the chief merchants, who are mostly from Indejan, and subject to Ferghana, had left that city. Although this was true, yet the delay had rather arisen from the depressed state of the market at Yarkand, in consequence of which the caravans had proceeded to Bokhara. The horses were small, low, but of great depth of chest and strength in the fore-legs; they were of two breeds, Kirghiz and Kozak, and the whole were purchased for fifty rupees a head, by a native dealer, for exportation to the Panjab.

Khaja Shah Nyas having come to the vicinity of Lé, was visited on the 21st by the Khalun, the Nuna Khalun, the Khaga Tan-zin, one or two other officers of Ladakh, Mohsin Baba, a merchant of Turan, and Abdul Latif, and a conference ensued, in which our character and objects were again canvassed. The Khalun said that he had received cautionary letters from Gardokh, and that an officer

from Lassa had come there to inquire what was meant by the visit of Europeans to the frontier. That the governor of Kashmir had intimated to him that Ranjit Sinh would take offence if he gave us encouragement; that Ahmed Shah, the malik of Balti, had written to him to know who and what we were; and that advices came from the Bisahar frontier of the approach of a European party. These circumstances, he said, had very much shaken his confidence in us, and he was at a loss what to decide. The Khaja repeated the arguments he had formerly used in our favour, and appealed to the Khalun's knowledge of his friendship for Ladakh in proof of his not being likely to give advice detrimental to the interests of the country. He reminded the Khalun that Ladakh was not dependent either upon Lassa or Lahore; that the English, a much more mighty power than any other, were, by the possession of Bisahar, quite as much his neighbours, and still more to be conciliated; and that the establishment of a commercial intercourse especially must be highly beneficial to Ladakh. Mir Izzet Ullah was then summoned, and desired to state ex-

plicitly what we wished or expected, and as he was instructed, he replied, that all we sought for was, 1. liberty to trade with Ladakh, and through it to other countries; 2. moderate duties; 3. a permanent factory at Lé; and 4. the good offices of the government, with that of Gardokh, to induce the latter to open the Niti Ghat to British commerce. The three first, after some discussion, were promised, but the Khalun expressed his doubt whether the Gardokh authorities themselves could permit access to the district: however, he promised that a confidential person should accompany me to Gardokh whenever I wished it. It was only further necessary, he stated, that these articles should be confirmed by the Raja to become the basis of a formal engagement.

As the administration of affairs was wholly in the hands of the Khalun, the Raja being little more than a cipher in the state, we now imagined that all difficulties were at an end. In this, however, we were disappointed. The Kashmiris having failed to influence the Khalun against us, had recourse to the Lompa, the governor of Lé, and engaged him to

counsel the Raja not to accede to any treaty, but to send us off with all dispatch. Our old friend the Khaja here again assisted us, and gradually prevailed upon the Lom-pa to withdraw his opposition. We exchanged visits, and upon his falling sick he applied to me for medical advice, which proved of service to him; and he became also friendly towards us. Still there was a delay, for the Khalun stated it was necessary, at least, as an act of courtesy towards the authorities of Gardokh, who were the ancient friends and connexions of Ladakh, to communicate with them before coming to any decision. A letter was accordingly written, and in a few weeks an answer arrived which disapproved strongly of the Khalun's conduct, and recommended our immediate dismissal. The Khalun was rather offended at the tone of this remonstrance, and determined to refer the matter to Lassa, requesting me to remain patiently at Lé, a measure to which I the more readily consented, as the prospect of effecting a passage by Yarkand was yet a subject of uncertainty. Owing to these interruptions the business was not brought to

a close until the beginning of May, when, although no reply had been received from Lassa, engagements were exchanged between the Raja and chief officers of Ladakh on the one part, and myself on behalf of the British merchants of Calcutta on the other, calculated to throw open to the enterprise of the latter, and through them to the manufactures of Great Britain, the whole of central Asia from China to the Caspian Sea.

The interval that elapsed between my arrival at Lé, and the signing of this treaty, was occupied with frequent communications with the authorities, with medical practice, with arrangements preparatory to the continuation of my journey, with correspondence public or private, and with the collection of information on various points relating to Ladakh and the neighbouring countries: my time was therefore fully engaged, and I found it impossible to keep a regular journal of our proceedings, or to digest and arrange the materials which I collected. Some of the principal features of this country, however, one hitherto unvisited by Europeans, will be found in the following account.

CHAPTER II.

Description of Ladakh—Limits—Extent—Surface—Rivers—Indus—Sinh-kha-bab—Its tributaries—Feeders of the Setlej—Soil—Climate—Agriculture—Grains—Wheat—Barley—Varieties of both—Grasses—Prangos—Vegetables—Fruits—Apricots—Apples—Willows—Poplars—Animals—Minerals.

LADAKH is bounded on the north-east by the mountains which divide it from the Chinese province of Khoten, and on the east and south-east by Rodokh and Chan-than, dependencies of Lassa: on the south by the British province of Bisahar, and by the hill states of Kulu and Chamba. The latter also extends along the south-west till it is met by Kashmir, which with part of Balti, Kartakshe, and Khafalun, complete the boundary on the west and north-west. The north is bounded by the Karakoram mountains and Yarkand.

The precise extent of Ladakh can scarcely be stated without an actual survey; but our

different excursions, and the information we collected, enabled us to form an estimate, which is, probably, not far wide of the truth. From north to south, or from the foot of the Karakoram mountains to the fort of Trankar in Piti, the distance is rather more than two hundred miles; and from east to west, or from the La Ganskiel pass to that of Zoje La, it cannot be less than two hundred and fifty. The outline, however, is irregular, being contracted on the north-west and south-west, and the whole area may not much exceed thirty thousand square miles.

Although the country of Ladakh lies at a lower elevation than the mountain ranges, which serve as ramparts to its northern and southern frontier, yet its general character is that of its gigantic neighbours, and its lowest levels are in the vicinity of perpetual snow. It is, in fact, a series of narrow valleys, situated between mountains not of very great altitude as compared with the land at their feet, but ordinarily towering to a height above the sea, which surpasses that of the pinnacles of the Alps. The elevation of Lé itself is more than eleven thousand feet above

the sea, and some parts of the northern pergana of Nobra are two thousand feet above that level. The passes that lead into Ladakh on its southern frontier are above sixteen thousand feet high, and there are several mountains within the country which are crossed in travelling from one valley to another, as the Kandu La, Chang La, and Parang La, which are of still greater altitude.

The principal valley in Ladakh is that which follows the course of the Indus, and extends from south-east to north-west through the greater part of the country. It may be said, indeed, to be continued throughout, or along the course of the Dras river to the frontiers of Kashmir. Another considerable valley runs nearly parallel to it, a short way to the north, from the frontier of Rodokh to the valley of Digar, and this, like the preceding, may be considered as continuing with interruptions through Ladakh, forming the bed of the Shayuk branch of the Indus. The general direction of the valleys is, however, at an oblique angle to these main lines, giving passage to the rivers that supply the Indus or

its principal branches. These valleys vary in extent; they are sometimes little better than deep ravines or defiles, and even at their greatest expanse they do not exceed a few hundred yards in breadth: occasionally a small plain is left by the receding hills of a mile or two in diameter, but such spots are very rarely met with. The general character of the surface is, extreme inequality, consisting of steep and bare mountains capped with snow, and close and rocky dells, with rapid torrents or deep rivers rushing along their hollows.

The river that may be regarded as the most striking and important feature in the geography of Ladakh, is the great eastern branch of the Indus, or, as termed in the country, the Sinh-kha-bab, the river that rises from the lion's mouth, in reference to the Tibetan notion, borrowed perhaps from the Hindus, of the origin of four great rivers from the mouths of as many animals; as the Indus from the lion's mouth; the Ganges, Mab-cha-kha-bab, from that of the peacock; the Setlej, Lang-chin-kha-bab, from that of the elephant; and the Ster-chuk-kha-bab, or river of Tibet, from the mouth of the horse.

The Sinh-kha-bab rises in the Kan-re, Kangri or Kantesi mountains, the Kailasa of the Hindus, and after traversing the country of Chan-than in a direction from south-east to north-west, enters Ladakh on its eastern, and follows the same course to its western frontier; at Khalets, about thirty miles east of Lé, it takes a turn more to the north, and passes through Kartakshe to Sagarkhoad, or Skardu, the capital of Balti, from whence it flows for a considerable distance in a north-westerly direction, and then turns to the south, in its course towards the plains of Hindustan: during its progress through Ladakh it is joined by several large streams.

The Shayuk is the principal river that joins the Indus on the north. Rising from the foot of the Karakoram mountains, it flows several days' journey to the south, till within two days' journey to the north-east of the village of Ahkam. There it receives the Duryukh, a river that collects the waters from the eastern portions of the northern valley, and it then turns, at almost a right angle, to the west. From Hundur, the capital of the district of Nobra, it flows in a direction north-west out of Ladakh, and passes nearly to the extremity

of the small state of Khafalun, within two or three days' march of Sagarkhoad, where it is incorporated with the Sinh-kha-bab, forming the Aba Sind, or Indus Proper. Near Hundur, the Shayuk receives a stream of some size, the Churasa, which also rises from the southern foot of the Karakoram ridge; passing some way to the east, it turns off to the south, and flowing nearly parallel with the Shayuk on its east, it joins that river a short way to the east of Hundur.

Several streams, of lesser extent and size, flow to the Sinh-kha-bab, on either bank, but they are mostly of the character of mountain-torrents and watercourses. A more important tributary is the Zanskar river, which, coming from the south, joins it opposite to Niemo. This rises near Labrang, on the southern frontier, and is soon joined by the Ling-ti. It follows a direction nearly due north, receiving on its way the Sum-giel and Marka rivers.

At four days' march west from Khalets, another river, flowing from the south-east, crosses the road, and is met by a stream from the south-west. These are denominated, from

the places by which they pass, the Pushkyum and Kartse rivers: flowing to the north, their united stream is joined by another from the south-west, the Dras river, rising in the mountains separating Ladakh from Kashmir, and furnishing a body of water as considerable as the Sinh-kha-bab itself at Lé. The Dras river again is joined on the west by the river of Shingo flowing from the steppe of Deosoe, in the principality of Balti. These different rivers combining, pour into the Sinh-kha-bab the collected waters of the western highlands, as the Shayuk brings those of the northern, and the Zanskar, Pushkyum, and Kartse, those of the southern elevation; thus constituting the Sinh-kha-bab the great drain by which the snows upon the lofty ridges of Tibet are the means of fertilizing the plains of the Panjab. These different rivers, however, varying in size and extent, are affected by the same influences of site and climate, and present the same attributes. Except where arrested by the hand of winter, they hurry along with rapidity and force, and are frequently unfordable, rather from the impetuosity of their currents than their depth. The latter

is, however, often considerable, especially in the summer months, when the snow is abundantly melted. They are liable, from the same cause, to extreme and sudden vicissitudes, and the stream that was scarcely knee-deep in the morning acquires a depth of several fathoms in the afternoon, when the rays of the sun have acted sufficiently upon the sides and summits of the neighbouring mountains.

Ladakh, although chiefly the reservoir of the Indus, contributes largely to another of the principal Indian rivers, and from Piti, its southernmost district, sends off a large stream that may be considered as the western branch of the Setlej. The Piti river, or, as it is termed in the valley, the *Losâr*, rises in two chief branches, the smaller from the mountains towards the Bara Lacha pass, and the larger and more southerly, from the eastern face of the Kulzam La, on the frontier of Kulu. Opposite to the fort of Trankar it is joined by the Pin river, from the south-west; and beyond the Ladakh boundary it is said to meet with the Tsurip river from the north. The united stream enters the Bri-

tish dependency of Bisahar, and joins the eastern branch of the Setlej, near the village of Namja.

As the surface of Ladakh is thus broken by steep mountains, deep rivers, and the ravines or valleys in which they run, it may easily be supposed that there is little space left for the labours of agriculture. These are confined to the levels along the borders of the streams, and the easier slopes of the lower hills, or the bases of the higher. The proportion of such available surface is comparatively small, and does not probably exceed one-fifth of the whole. The soil consists almost entirely of the disintegrated rocks, torn to pieces and crumbled by the successive congelation and thaw of water in their crevices and chasms, and by the action of snow and torrents upon their surfaces. The mountains being for the most part primitive, the decomposition of the granite and felspar clothes the levels with a coating of clay, sand, gravel, and pebbles, which is only rendered productive by human industry and skill. The general aspect of the country, when not under cultivation, is one of extreme sterility and barren-

ness, in which a few willows and poplars are the only timber-trees, and the chief verdure is that of Tartaric furze, with a few tufts of wormwood, hyssop, dog-rose, and other plants of the desert, and the rock, exposing, rather than concealing, the barrenness of the soil.

Nor would the climate be expected to prove more auspicious than the soil to the labours of the husbandman. Frost with snow and sleet commences early in September, and continues with little intermission to the beginning of May. From the middle of December to the beginning of February we found the thermometer out of doors at night seldom above fifteen degrees, and on the 1st of February it was as low as nine degrees and a half. In an inner apartment of our dwelling it ranged from twenty-three to thirty-two, but did not rise above the freezing point till the 8th of February. In May the days become warm, although early in the morning the rivulets not unfrequently present a coat of ice, and this may be observed in some spots even in June, whilst on the

loftiest mountains snow falls occasionally in every month of the year. During the summer months the sun shines with great power, and for a short part of the day his rays are intensely hot. At Lé, on the 4th of July, the thermometer in the sun rose at noon to one hundred and thirty-four, and on the march to Piti it stood ten degrees higher: at night the temperature was seventy-four degrees. Even in the depth of winter the heat of the sun is very considerable for an hour or two, and the variation of temperature is consequently extreme. On the 30th of January the thermometer showed a temperature of eighty-three at noon, when it was only twelve and a half at night. The great heat of the sun in summer compensates for the short duration of the season, and brings the grain to rapid maturity. Barley that was sown in the neighbourhood of Lé on the 10th of May, was cut on the 12th of September; and at Pituk, five miles from Lé, and about eight hundred feet lower, in a sheltered angle of the valley, the same grain is ready for the sickle in two months from the time of sowing.

The atmosphere of Ladakh is, in general, dry, the moisture being converted into snow in the winter, and speedily evaporated by the scorching suns of summer; there is consequently very little rain. During our stay in the country rain fell but on ten days, and then in very small quantities, between the end of April and the middle of September, and this we were informed much exceeded the average fall.

Notwithstanding these unpromising conditions the harvests of Ladakh are by no means unproductive, and they present also the peculiarity of yielding equally abundant crops year after year from the same land, without its ever being suffered to lie fallow, and without any attempt being made to cultivate a succession or alternation of produce. There are some other peculiarities in the agricultural economy of Ladakh, arising from the character of the country and the climate, which may afford not unserviceable lessons to the inhabitants of Alpine regions in other parts of the world.

The first step in the process of tillage is to clear the ground of its incumbrances, and, as

far as possible, equalize the surface. The larger blocks of stone are left undisturbed, but the smaller fragments are collected and arranged in longitudinal piles or walls, traversing the face of the declivity, which every field more or less presents, forming a series of parallels, the space between which is made as level as possible by conveying materials from the upper to the lower edge of the slope. In this manner a succession of terraces is constructed, each supported by a stone breast-work, and down which stone channels communicating with some spring or natural reservoir on the higher ground conduct a plentiful supply of water. This is the disposition of the grounds in the vicinity of the villages and towns which are situated in the different valleys forming the inhabited and cultivable portion of Ladakh; but even in solitary spots, remote from human habitations, stone dikes may be observed crossing the sloping sides of mountains near their base: these are constructed by the peasants to assist the deposit of soil and gravel by the melting snows, and they are thus left for many years, perhaps for some generations,

for the operation of natural agency to prepare for the labour of man, and the more ready conversion of an abrupt and steril declivity into an accessible flight of terraces of cultivation.

Upon the field thus gained from the mountain soil has to be, in the first instance, supplied, and afterwards enriched by manure. As there is great scarcity of wood the dung of cattle is mostly consumed as fuel, and the means of ameliorating the ground must, therefore, be sought in the habitations of man. The houses are well provided with apartments for this purpose: the floors of these are strewed with a coating of gravel three or four inches in thickness, which is removed from time to time, and with the ashes of the burnt fuel forms the pabulum that sustains the nutritive properties of the soil. In some villages public receptacles are constructed for the people, and the accumulation of soil for general use.

According to the dryness of the ground water is let in, either previous or subsequent to the first ploughing. After the land has

been once ploughed, the manure, brought in sacks upon asses to the field, is spread over it, and a second ploughing takes place, in the furrows of which the seed is sown. The grain is sometimes sown broad-cast, at others in the furrow, and is also put in by the dibble. In the neighbourhood of Lé the plant was suffered to acquire a height of five or six inches before it was watered, but after this it was refreshed by a thin coat of water almost every day. The water is, in general, clear and pure, but is subject to many variations in colour and quality, and is often discoloured by earth, and impregnated with soda and alum. In general it is unwholesome to strangers, and at some seasons even to the natives.

Oxen of the common kind are not used for ploughing, the zho ox, or hybrid male between the yak, or bos grunniens, and the common cow, or the humped variety called zebu, being greatly preferred, as is its sister, the zhomo, for the dairy. Ploughing is performed by a pair of zhos, driven by the ploughman without reins, but guided, when

well broken in, with the utmost precision, by the voice or by a willow wand.

The plough is entirely of wood, generally willow, save the point, which is formed by a small piece of iron. The whole structure is simple, unexpensive, and the instrument is little liable to be out of repair, excepting the point, which, from the softness of the metal, requires to be frequently sharpened. The furrow made is superficial in mellow lands, even not exceeding four or five inches from the top of the ridge to the bottom angle, but the clods are broken, and the earth is made almost as fine as for garden culture, and the seed is covered with especial care.

The necessity of taking advantage of every available article for the food of the cattle leads to a regular and effective mode of weeding the corn fields, and when the corn has been sown for about three weeks, women and children are turned into the field every morning to collect the grass and weeds springing up with the grain. No harm results from this process, and although the stems are for a little time disturbed by the

footsteps of the weeders, they are never trodden down, and recover their erect position in a few hours after the field has been watered. The regular removal of the weeds gives the corn the benefit of the whole power of the soil, and admits the access of light and air to the roots of the plants.

The kinds of grain cultivated in Ladakh are wheat, barley, and buck-wheat, of various descriptions. The generic name of the first in Tibetan is To, of the second Nas, and of the third Do, in the eastern, and Bro in the western parts of Ladakh.

The wheat indigenous in Tibet is of three kinds. To Chand, red wheat; To Karmo, early wheat; and To Surutze. There is also another species, termed To Mondhu, or beardless wheat, or from the country whence it comes, Hasora wheat.

The whole of the wheat of Tibet has the merit of being hardy, but the To Karmo is the most productive, and yields the finest flour. Wheat is in general sown in spring, from March to May, and reaped in summer, from July to September, according to the

temperature of different localities. The straw is in general less luxuriant than in Europe, but the crops are beautifully regular and clean. There is very rarely any disease amongst the crops, although after a fall of rain heavier than ordinary, a few ears may sometimes be affected with ergot, or speckled with mildew.

The Hasora wheat, which is cultivated in some of the western districts of Ladakh, is characterised by a peculiar structure of the ear, which may be described as formed of two sides and two pillars. The sides are nearly flat, and the stem of supporting straw runs perpendicularly between two pillars of grain. The ear is much shorter than in the other varieties of wheat, but it is broader, and each ear contains from forty to seventy grains. The straw, though not differing in diameter materially, is much more solid than usual, so that a broken or bent stem is rarely seen. It is of a bright colour, and from its lustre, strength, and flexibility, would make a valuable material for platting. It is occasionally worked by the women of Ladakh into small stars, with which they

decorate their caps, or their hair. The grain of the Hasora wheat is of a yellowish white colour, whilst that of the Ladakh wheat is more or less tinged with red; it is also shorter and more rounded. The ear is distinguished from that of the other varieties in Ladakh, by exhibiting no trace of a beard, whence it derives its appellation. The other kinds are all furnished with this appendage, and even the Hasora wheat, after some years' cultivation in the province, puts forth a few bristly straws from the summit. The Hasora wheat I was informed bears cold better than any other kind. On poor lands it is said to give a scanty return, but largely to repay the expense of manure.

The barley of Tibet is of two kinds, distinguished by the peculiarity of retaining or parting from the rough exterior capsule, after the grain has quitted the ear. The first, called Nas Swa, is not different from the common barley of Europe. To the second sort, the term Sherokh* is applied, and this is distinguished into six varieties. 1. Chu

* It would appear that Marco Polo met with a species of the Sherokh, or naked barley, in Badakhshan, as he says, "good

Nas, slow, or late barley. 2. Giok Nas, quick, or early barley. 3. Nas Yan Karmo, which also signifies early. 4. Nak Nas, black barley. 5. Tughzut Nas, or six-sided; and 6, Mendokh Nas, or flower barley.

The husked barley, or that of Europe, is of necessity raised in those localities which are the warmest, for although the seeds of the Sherokh may be sown in such situations, the produce will be rough barley. The latter again yields naked barley in elevated and cold sites, as in the lands of Lé. The Chu Nas, or late barley, is cultivated on those spots where, although the temperature is not the most severe, yet the summer heat is not sufficient to raise two crops a year, or one of barley, and one of buck-wheat. Giok Nas is employed in very high situations which have short summers with very hot days, the nights at the same time being cold: this is the principal cultivation of the valley of Dras. Nas Yan Karmo, or, as sometimes denominated, Sarmo, is cultivated in all places, vary-

wheat is grown there, and a species of barley without a husk." This, according to Marsden, is the *hordeum nudum, h. glabrum,* or *h. vulgare seminibus decorticatis* of European botanists.—MOORCROFT.

ing from temperate to warm. It is preferred to all the other kinds of barley, as its produce is great, and its flour is little inferior to that of wheat. Nak Nas, or black barley, is the hardiest of all the varieties of Sherokh, and grows at the extremest altitude at which grain can be raised. It flourishes at Wakka, where, partly from its elevation, and partly from being surrounded by snowy mountains, the climate is excessively severe; and rain in summer is of more frequent occurrence than in other parts of the country: it gives a good yield, but its flour is objected to, even by the Tibetans, who are not fastidious on account of its black colour. The six-sided barley, or Tughzut Nas, is also grown at Wakka, but is considered inferior to the Yan Karmo, both in produce and quality. Mendokh, or flower-barley, is said to have been recently introduced from the neighbourhood of Lassa, and was cultivated to a very limited extent. It was likely, however, to become a favourite crop, as it was said to produce abundantly, to thrive equally well with or without rain, and to yield a flour little inferior to wheat.

The return of grain at Dras is said to be about twenty for one. At Sankho it varies so much, according to the varying condition of the soil, that an average could not be procured; and after much exertion I was obliged to abandon my attempts at obtaining an averaged estimate of produce. If the land be very poor, the seed gives only a single stem, but if in good heart, it yields several; and in Wakka, it is said to be no uncommon occurrence for one plant of the Yan Karmo to consist of from twelve to fifteen ears, but the filling is almost always proportioned to the liberality with which the field has been dunged. I have not seen so rich an average yield as that just mentioned, although I have counted eighteen ears produced by a single seed, on a spot enriched by horses having been kept stationary, and well fed upon it during the preceding winter. But this richness may be carried to a mischievous excess; ample manuring so permanently sustaining the vegetating powers of the plant, as to prevent the grain ripening in short summers, a circumstance I have more than once witnessed in this country. And though giving much straw,

a green head with small grains justifies only a considerable use of manure, which, if not expensive in money price, is not collected without much labour. Whilst at Korbo seeking for Mendokh Nas, my eye was caught by the regularity of the plants of a field of Yan Karmo, which was almost as great as if the whole seed had been disposed in small squares of equal size, but I could not learn that more than common care had been employed in sowing it. And a similar evenness was observed in the height and strength of the straw, in the length of the ears, and in their equality of approach to ripeness. It was the finest crop I ever beheld; and a spirited English farmer would have thought himself sufficiently repaid for a ride of many miles by a sight of it. From being close to the house of the farmer, it had probably obtained a larger share of manure than other fields more distant; and this might account for the crop being somewhat backward, and for the equal size of the plant, but not for its regularity as to distance, which must have been produced by good ploughing, and even hand in sowing broad-

cast, as drilling is not used in Purik, though practised in Nobra.

The husk of the Sherokh varieties, whether bearded or beardless, breaks when the grain is ripe, and discloses the latter apparently naked. The axilla is double, the outer having a tinge of green, blue, purple, yellow, or white, according to the specific variety, influenced apparently by the locality.

A short time before the grain of Sherokh barley becomes ripe, it is particularly large and plump, and seems to expand the husk so as to cause it to burst; when quite ripe it begins to shrink, and when hard it actually loses so much of its former dimensions, whilst the husk retains those it acquired in its greatest state of dilatation, that the grains standing in the cup or husk on its end become too small for the latter, as seen but partially covered by its former coats, and so loosely attached, as to be capable of being dislodged by a slight shake. If the crop be left standing after it is fully ripe, the grain is more disposed to shed than common barley; and this circumstance justifies the Tibet practice of reaping

before it be perfectly matured. Through this premature gathering, the grain shrivels and becomes smaller than if it had been allowed to become fully ripe, but no injury is sustained in respect to the quality of the flour, or the power of vegetating, at least as far as could be made out by a casual observer. The latter remark, however, must be taken as relative only to the crops of Tibet in general, as there are certain localities of this country, of which the summer begins too late to afford heat enough for ripening the grain so fully as to admit of its vegetating, and these districts procure their seed corn from others more happily situated; yet in the former good flour is obtained from grain cut whilst green, and which of course yields a smaller proportion than that which is matured.

Instead of the crop being bound in sheaves in Ladakh, it is laid on the ground in flat unbound bundles, so piled, that the ears are concealed by the butts of the stems for a few days in fine weather to ripen more completely; but if it is cloudy, or rainy, it is exposed in shocks, with the ears uppermost,

on large stones on the sides of rocks, where, by a few showers, the straw loses its white or cream-like colour, and speedily contracts a tint bordering on that of sulphur, without injury to its quality, unless there be an excess of rain, which seldom happens. When the soil is very dry, the grain is pulled up by the roots; when moist, it is cut by means of a greatly-curved, but short-bladed sickle, which, perhaps, is quite as well adapted to the purpose as that of Europe. Every inch of straw is of value to the farmer for feeding his cattle in the long winter of Tibet; and this value suggesting the pulling up of the straw by the roots, where it can be extracted without bringing up soil along with it, indicates also the expediency of cutting the stem as near to the ground as possible, in situations so moist as not to admit of the former method being employed; and to prevent the fingers of the reaper being hurt by scraping along the surface of the gravelly soil, either the handle of the sickle has at its lower surface a projecting guard of wood, or there is a niche in which the fingers are lodged, the plan differing in different pro-

vinces. This handle is made of willow or of poplar. As the clods are broken with the most scrupulous care, the straw is cut almost within two inches of the surface of the soil. Near large towns scarcely any weeds remain, they having formed a valuable resource for stall feeding, so that the butts of the straw become dry nearly as soon as the heads; but in single farms or villages, where the labourers have a larger surface of land under cultivation compared with their numbers, the practice of drawing the crop is adopted, and the weeds are either left to be eaten off as they stand, provided the winter be near, or turned into the soil as manure for a crop of buck-wheat, which ripens in six weeks or two months, if there be enough of the warm season left after the corn crop is got in.

Tibet offers many peculiarities likely to influence the constitution of the barley. In an unclouded sky, the solar rays passing through a thin atmosphere, are finer, and they are vigorously reflected from the rocks, and in many parts from sand, or from a light-coloured stony soil; but the nights, as before observed, are cool, and frequently cold. The

roots of the plants are moistened by irrigation with very cold water, whilst the stem and the ears, in by far the greatest proportion of localities, are kept almost continually in a state of dryness. Whether the sudden expansion of the grain, and its subsequent contraction, would take place in an equal degree in the less cold, and also less hot, but more humid climate of Britain, it is impossible to determine, except by actual experiment. In no other country have I seen an equal surface in barley as regularly covered with plant, and never plants with better heads. Although the degree of influence of sudden alternations of exposure to heat and to cold, to dryness of atmosphere and moisture of soil, the latter by irrigation with cold water cannot be precisely determined; yet the influence of a continual high temperature, and of a dry atmosphere with a moist condition of root, produced by irrigation with water rather tepid, is known to convert the barley now alluded to into common barley. This has happened in the Panjab, and at Peshawer, if I may trust to the reports of merchants, who stated, that they had ac-

tually witnessed the fact in the third year on the produce of seed taken from Ladakh to those countries. The individuals in question having noticed that I was engaged in making inquiries and observations in respect to this barley, separately, and from friendly motives, advertised me that I should be disappointed by sending it to Hindustan, as it would quickly degenerate into common barley. Even at Pituk, in the very heart of Ladakh, the same effect takes place.

Sherokh barley is preferred in Ladakh to the common, or husked barley, for all uses; but especially for the preparation of the fermented liquor called Chang. It would probably, therefore, be valuable to the maltster, whilst from its hardihood, the quickness of its growth, and the abundance of its crop, it might be cultivated with advantage in some of the cold countries in the north of Europe and America. I considered it, therefore, worth while to collect the grains, and sent a considerable supply to my friends in India and in Europe.

Of buck-wheat there are said to be three varieties, but it is unnecessary to particu-

larise any of the peculiarities of this grain, as it is well known under the name of Phaphar throughout the hill districts subject to British authority.

The natural sward of the unimproved glebe is composed chiefly of a starveling low grass, and dwarf sow-thistle, the spring shoots of which are dug up for a potherb. In bogs the surface is covered by a short rush and bent-grass, with some varieties of crowfoot (*ranunculus*), and dwarf equisetum. The islands and banks of the rivers in some places naked, are in others fringed or concealed by bushes of a new kind of thorn, bearing an abundance of small red acid berries, affording winter food to the birds. In some places on the plains natural springs keep the surface in a perpetual state of humidity during the warm weather, and are surrounded by beds of low rush and aquatic grass, offering wholesome pasturage to the cattle during the spring and summer. If, however, the stock be allowed to graze upon these lands in August and September, the sheep and goats are sure to be affected by the rot, from the abundance of the liver fluke

(*fasciola hepatica*), which either in the egg or in the young worm is then eaten with the herbage. Lucerne, called Olh while green, and Champu when cut and dry, is both wild and cultivated: it grows with great luxuriance in some parts of the province, and is collected and piled on the parapets of the houses as winter fodder for the cattle: there are said to be two varieties of it, one which quickly comes to perfection, but dies in three years; the other of slower growth, but of much longer duration, the roots living and bearing for fifty or sixty years. A species of sainfoin grows wild in some parts of the mountains, and is much sought after by wild goats and sheep: the inner bark of its root affords the only material employed for paper.

One of the most valuable sources of fodder of Ladakh, and perhaps of any country whatever, is a plant known by the name of Prangos, and which grows only in the western parts of the country at Imbal or Dras. This occurs of various sizes according to its age, from a single leaf covering not more than an inch of surface, to a cluster of leaves and flowers spreading to a circumference of

twelve and eighteen feet. This bush consists of long feathering leaves of a dark green colour, crowned, when in blossom, by a profusion of large tufts of yellow flowers; the leaves when of full size are two feet in length, and the bush is circular with a rounded top. The flower-stalks rise from two to five, or even six feet, in old plants. The leaves emit a strong odour, which at first is disagreeable, but becomes less so when a person is familiar with it; they have also when fresh a pungent, bitter, and slightly aromatic taste, but these properties disappear in the dry state. The flowers are slightly odorous, and when first opened are covered by a glistening, viscid, and sub-saccharine exudation, which attracts the ants in such numbers, that the flowers are sometimes blackened by them. Some copper-coloured beetles, and some small wild bees, are also busied in gathering this substance. The root is perennial: the leaves and flower stems are in life for about four months. The plant flowers in June, and at the end of August the seeds fall and spontaneously sow themselves; they lie in the ground till the snow begins to melt,

or in April, and the plant then makes its reappearance. It is not, however, till the third year that the root is fully developed and begins to spread; thenceforward it continues to put forth fresh shoots for an indeterminate period, so that, in the belief of the peasantry, a plant scarcely ever dies.

The head of the Prangos, including leaves, flowers, stems, and seeds, is converted into hay, as winter forage for goats, sheep, and cows. Late in August, or early in September, the plants are cut to within two or three inches of the ground, and laid on it in bundles, kept down by heavy stones. These bundles are sufficiently dry in three or four days, to be gathered and piled in thick layers on the housetops, where stones are placed upon them to prevent their being blown away: they require no shelter. In the winter months about a hundred weight is considered sufficient for twenty sheep or thirty lambs for twenty-four hours. Healthy sheep fed upon Prangos hay are said to become fat in twenty days, and that if fully fed with it for two months, their fatness approaches to suffocation. It is said also to be of a

heating quality, but not to a greater degree than is desirable in such a climate. It displays its nutritive properties in cows as well as in sheep and goats, but it is said that it does not increase the quantity of milk; and as beef is not an article of food in Ladakh, there is no advantage in feeding neat cattle upon it. Horses thrive upon it, but they are not readily reconciled to it; and it is remarkable, that whilst growing, no animal will browze upon the leaves of the Prangos, although they will feed upon its flowers. It is only as hay that the foliage is an acceptable article of food. Prangos has not been raised in any other of the districts of Ladakh, rather, it would appear, from no pains having been taken to transplant it, than from any difficulty in localizing it elsewhere, as one or two experiments had been made, I was informed, many years since, and the plants had flourished. Considering the value of this plant as fodder, its growing in a poor sterile soil, in every variety of site, except actual swamp, and in a bleak, cold climate, and its flourishing wholly in independence upon the care and industry of man, it would seem pro-

bable that it might be introduced with national advantage into many parts of Britain, and would convert her heaths, and downs, and highlands, into storehouses for the supply of innumerable flocks*.

It is no small advantage of the Prangos that it does not prevent the contiguous growth of common grass or different kinds of lucerne, which spread round its stem, underneath its bushy head, or even run over its summit. The yellow lucerne is often found in this situation, as well as growing wild in many of the mountains. It is also cultivated in some districts, and when duly supplied with water yields a luxuriant and useful crop. The leaves of this lucerne are smaller than those of the blue and purple varieties of Europe, and the stems are less strong and erect, but the heads are more fully covered with tufts of flowers. There is also another

* The Prangos has been placed by Mr. Lindley amongst the Umbelliferæ as a new genus: the Ladakh kind he denominates Prangos pabularia.—*Asiatic Journal*, vol. xix., p. 798. Mr. Royle considers it likely to be the Silphium of the ancients.—*Illustrations of the Botany of Himalaya*, p. 230. The seeds sent home by Mr. Moorcroft in 1822, had, unfortunately, lost their vegetating power, and it does not appear that any subsequent supply has been received.—Ed.

variety of lucerne called Yarkandi, a biennial, which has a larger stem than the ordinary kinds, growing to a height of four or five feet. The appearance of the straggling and thinly covered stems of this grass gives it a rather unprepossessing appearance, but the stalks are eaten by the cattle with great avidity. At Lé this is sown along with the perennial variety, and by its greater yield the first and second year supplies the defectiveness of the latter.

A very valuable herbage occurs in the Long-ma, or sand grass of Ladakh, which, growing on loose, sandy soil, and forming an intricate net-work both on the surface and beneath it, protects the slender covering of the primitive substratum from being blown away by the strong winds that sweep the valleys, and the whole country from being converted into a succession of bare rocks and mounds of sand. The Long-ma rarely reaches more than a height of ten or twelve inches, and frequently not more than five or six, a considerable portion of the blade being always buried in the sand. The length of the root is much more considerable, and

strikes so deep that it cannot be extracted entire. At a depth of five feet it was found little diminished in circumference, throwing off numerous lateral fibres through its whole course. The grass on the surface does not extend uniformly, but affects the form of patches, by which it more effectively arrests the driving sand. Cattle will not eat it whilst it is green, or while other pasturage is procurable; but it is sufficiently hardy to outlive other herbage, and in November, when there is nothing else on the ground, it is eaten by horses and yaks. It is then of a yellow tint, but when the leaves and crown are eaten off, the brown stems are left almost level with the ground, their interstices filled with sand, and the appearance of each patch resembling that of an oakum door-mat. The plant emits a pleasant smell, and has a sweet and agreeable taste, but the leaf is stiff and harsh, with sharp edges. Although cattle do not fatten upon it, it is said to be very invigorating, and, perhaps, the extremely rich quality of the milk of the yak in winter may be due to this grass. The stories related by the carriers of its effects in restoring vigour

to over-worked horses border on the marvellous. It furnishes almost the whole of the winter food of the unstabled brood mares and colts of the Raja of Ladakh, of the kiang, or wild horse, of the yak, and of all cattle which are left unhoused at that season.

There is no great variety of vegetable produce in Ladakh, but onions, carrots, turnips, and cabbages are reared in some places during the spring and summer. For winter use the leaves of the cabbages and turnip tops, or sliced turnips, are dried: carraway, mustard, and tobacco are grown in a few gardens.

The only fruits cultivated are apricots and apples, standards of which are reared abundantly in the orchards of every farm-house. Of apricots there are said to be ten varieties, and they certainly present much difference in size, shape, flavour, colour, and surface. They are all standards, and are raised from the stone with one exception, which is multiplied by inoculation. This is a small fruit not much larger than a walnut, somewhat flattened at top and bottom, of a glossy skin, and pale yellow colour, inclining to white, which changes to a reddish brown where it

faces the sun. The pulp is of the usual consistence next the skin, but becomes softer as it recedes, and next the stone is little thicker than honey in the comb. The whole fruit partakes of the lusciousness of honey, combined with a slight and agreeable bitter, and the flavour is unsurpassed by any variety of apricot I have ever met with. The stone is of a light yellow colour, approaching to white. The trees grow in the Pargana of Ladakh proper, and especially at Saspula, not far from Lé, on the bank of the river.

There are two other kinds of apricot, which might, perhaps, be advantageously introduced into European horticulture. One has a smooth shining surface, without down, is round, and of the size of a greengage, and holds, both in appearance and taste, a middle station between an apricot and a plum. The third is a little larger than the preceding, with a short down on the skin, which is of a redder colour. The stones of both these kinds are of a dark brown, bordering on black. The other varieties are deficient in juice and flavour, acid, or mealy and are fit only for drying and preserving.

The trees blossom in April and May. Much fruit is gathered in August, but the season is not over before the end of September. The greater part of the fruit is dried in the sun, in which state it remains good for many years, and is stored for home consumption, or exported to Lassa and Tartary. About six hundred maunds are annually exported, and ten or twelve pounds are sold for about a rupee. The dried fruit has a mixture of sweetness and sub-acidity, and is a wholesome and palatable article of diet. An oil, used as a perfume, is extracted from the apricot kernels.

The apple-trees are also numerous, and of several varieties: some of them are engrafted, but the greater number are wildings: they bear freely, endure great cold and intense heat, require little rain, and are very rarely attacked by disease. The ordinary fruit is of the middle size, rather oval than round, of very regular shape, and of great beauty and variety of colour: it is very juicy, and of an agreeable, though not very decided flavour, and the pulp is light, without being at all woolly. They are ripe in September,

and are kept in very good preservation through the winter.

The Sarsinh is a tree which yields a fragrant flower and agreeable fruit. It grows no farther eastward in Ladakh than at Ayu, a village about four miles from Lé, but it is constantly found in the vicinity of the villages of the western districts, and is said to extend northwards to the foot of the Muz Tagh mountains. It is a tall slender tree, rising sometimes to the height of forty feet, and not exceeding a foot in diameter. The leaves are something similar to the myrtle, and are either dark-green, or are covered with a short white down, so that when agitated by the wind the foliage bears some affinity to that of the Protea. It bears a minute yellow flower, which in the season emits a diffusive and most delicious fragrance, and is highly prized as a perfume by the natives. The fruit when ripe is of the size and shape of a French olive, of a cream colour, or yellow, or orange, according as it has been exposed to the sun. The skin is thin and shining, the stone long and narrow, and the space between it and the rind filled by a

sweetish and mealy pulp. In Ladakh the produce is scanty, and is at once consumed. In Yarkand, where the tree is termed Igdi, the fruit is abundant, and is variously employed. When reduced to powder it is eaten either dry, or mixed with water into a paste, or still further diluted it forms a sherbet. Its principal application, however, is to the still, as upon fermentation it yields a brandy which it is said both Mohammedans and Chinese prefer to brandy distilled from the grape. The flavour of the potation is sometimes heightened by an admixture of the flowers. The sediment after distillation is given beneficially to cattle. The wood is also occasionally employed as fuel, and is said to burn with an agreeable odour*.

These are the only fruits cultivated in Ladakh, but pears, of a kind not unlike the Cressanne, are imported from Balti, grapes from Kashmir, and melons from Yarkand. The only wild fruit I observed was a small round orange-coloured berry, which was produced in great abundance by a prickly shrub

* It appears to be the *Elæagnus Moorcroftii* of Dr. Wallich's MS. catalogue in the library of the E. I. Company.—Ed.

called Chírma, or Chasta Ruru. The fruit is too acid to be eaten, although the flavour is agreeable, but the plant flourishes through the winter, and the berries are a great resource to the smaller birds.

A vegetable product of much interest, both in a scientific and commercial view, and which is met with in great abundance in Ladakh, is Rhubarb. It is found, indeed, in various places on the southern, as well as the northern face of the Himalaya, but nowhere in greater quantity or luxuriance than in this part of Tibet, where it approaches the line of country from which all Europe is supplied. It has been asserted that all the rhubarb of commerce comes from the frontiers of China, and there is no doubt that such is the principal source of its supply, part finding its way through Russia, and part through Turkestan, by Bokhara to the Caspian, and into Persia and the Turkish provinces of Asia Minor, whence it is conveyed to the ports on the Mediterranean. Its growth, however, is by no means confined to the districts under Chinese authority, as it is found in Gerhwal, near Joshi-

math, and occurred on various places on the road from Niti to Gardokh, on a former journey. On the present occasion it was procured at Kangra, near Shujanpur, on the Ritanka pass, at Tandi, at Darcha, and almost everywhere in Ladakh. It grows in some spots in such quantities, that two men may dig up in a couple of hours more than three men can carry. It is said to be also produced in great abundance on the northern face of the mountains which separate Khoten from Chan-than.

Botanists have distinguished three kinds of rhubarb according to the shape of the leaves, as palmated, undulated, and compact. The plants which occur in Ladakh present undoubtedly varieties of this nature; the leaves being sometimes deeply indented at the edges with sharp points, others being scalloped, or wavy, rather than indented, and others being nearly smoothly circular. It seems not improbable, however, that these varieties are not permanent, and that the same plant may present all the differences of leaf according to circumstances. There is no apparent difference in the condition

or properties of the root; nor is there reason to think that the plant is not the true rhubarb, although Mr. Sievers, who was directed by Catharine II. to search for the drug on the confines of Siberia and China, pronounced the plant which he met with in that locality to be spurious*.

Of the rhubarb which is brought by the caravans from China, there are said to be three kinds, distinguished and named from a fancied similitude to certain forms; the first and most esteemed is termed *Amrudi*, or pear-shaped, the next *At toyághi*, horse-hoof shaped, and the third *Zardiki*, or carrot-shaped. The price varies, but the best kind, or amrudi, is ordinarily purchased at the rate of a jing and a half, or one Delhi ser (something less than two pounds avoirdupois), for one rupee four anas, or about two shillings and sixpence. The second sort sells for about one-fifth, and the third for

* Dr. Royle observes, of one kind of rhubarb of which a specimen was forwarded by Mr. Moorcroft, that it was probably *R. spiciforme*, or a new species distinct from *R. emodi*. *Illustrations*, p. 36. And in another place he remarks, 'Some of the finest rhubarb I have ever seen was sent by Mr. Moorcroft from Ladakh.' p. 39.—Ed.

two-fifths less. Every piece of rhubarb has a hole in it, through which a string has been passed whilst the root has been hung up to dry; but the larger perforations are probably the relics of a rottenness, to which the roots of this plant seem to be invariably subject. And of one kind said to be imported into Europe from Canton in long flat-sided pieces, it is likely that the roots have been longitudinally slit, so as to avoid the decayed portion, and afterwards compressed. The Chinese are said to pack the rhubarb in hempen sacks, and to cover these with raw hides, which in drying contract upon the bale, and effectually defend it from moisture if the seams have been properly contrived.

Almost all the roots that have come under my inspection have been found either completely rotten in the middle, or in a state more or less approaching to decay. Yet even from roots which present little more than a crust of bark, the crown throws out leaves and flower stems of such luxuriance as to indicate no sign of rottenness at the root. Indeed the defect of the principal root is more than compensated by the fibres

which it throws out annually, and which supply its place until they in their turn become large and diseased. In some localities roots which can scarcely be regarded as a year old are affected in this manner. In one situation, that of Neril Lá, nature had apparently devised means to arrest the extension of the decay, the rotten part being inclosed in a thin membranous case, formed apparently of a resinous exudation from the sound portion. Long cores of rotten and dried substance, as well as insulated nodules, might thus, on slitting the roots longitudinally, be turned out from the sound part entire, like kernels from a nut, or like diminutive mummies from their cerecloths. Sometimes the investing membrane occurs double, the plates being separated by a brown fibrous substance. In no other situation did the rhubarb roots present the same appearances, and the peculiarity was only to be explained by the more than usually dry situation of Neril Lá: for although it seems likely that rhubarb will flourish only on a soil seldom saturated with water, as is the case in the greater part both of Ladakh and

Chan-than, yet it seems to affect moist places, growing especially in ravines and dells, and sheltered and damp spots, or on the slopes of mountains, down which water is constantly trickling from springs or melted snow. This moisture, however favourable to the development of the foliage, is probably the cause of the rottenness of the root, and if it could be counteracted by diminishing the absorbing powers of the root, or by cutting off the superabundant supply of water, its occurrence might be prevented.

The medicinal virtues of the root do not seem to be impaired by the disease, and in various trials which we instituted, the Ladakh rhubarb was found to be fully as efficacious as that from China, with a much less nauseous flavour.

The facility which is thus offered to the supply of rhubarb, either from the British Himalayan provinces, or from Tibet, would probably very soon transfer the trade in this article to British enterprise, if it were once directed to the subject. If inferior in quality to the China, or the so-called Turkey rhubarb, inferiority which is by no means esta-

blished, might very possibly be remedied by care in the cultivation, in the preparation, and in the packing. The transport by way of Calcutta being chiefly by water-carriage should be much cheaper than by St. Petersburgh or the Levant, and the merchants of British India could consequently undersell those of Russia or Turkey. It can scarcely be thought that the trade is not of sufficient value to merit attention, as even if the limited use of rhubarb as a drug were considered as rendering a trade in it of little importance, yet there seems a probability that it might be used extensively as a dye, if it could be brought to market cheap enough for such a purpose.

The only timber trees found in Ladakh are the willow and poplar, and chiefly the former. In order to render it more productive of branches, required for fuel, for roofing, for baskets, and other wicker-work, the natives adopt a method of treating the tree which renders its growth singularly luxuriant. Willow staves from pollard heads about two inches in diameter and ten feet long, from which the leading and side shoots have

been cut, have their butt ends immersed in water until they throw out root-fibres: three of them are put into the ground on the edge of a natural or artificial water-course, bound together with grass. After three years a broad strip of bark is torn off from each, from about a man's height down to the ground, and notches are cut in the bark and wood, commonly on the opposite side, to form a ladder by which a man may climb up the tree. As the wood which has been laid bare dries, it is chipped off, and this operation is repeated until the tree is little more than a hollow cylinder of bark, lined with a thin layer of wood. The tree thus contributes from its substance a supply of fuel, and at the same time the branches from its head are multiplied. The first formed or oldest branches being but feebly supported, bend outwards, and sometimes in a slight degree downwards, and from their upper surface springs a crop of perpendicular shoots, greatly exceeding that of the heads of common pollards. The principle on which this occurs may be analogous to that which seems to prevail in espalier fruit trees, the branches

of which, being horizontally disposed, throw out a greater number of upright shoots than they would do if suffered to grow in their own natural direction.

The poplars which, along with willows, are planted about every village in Ladakh, are sometimes the Lombardy, but more frequently the black poplar. They are in very insufficient numbers for the wants of ordinary consumption, as the plantations are not allowed to encroach upon the cultivation of corn. The supposed deficiency of surface for timber, without trespassing upon land appropriated to tillage, has suggested an expedient for the multiplication of the produce of wood, which is ingenious and successful. When a poplar, at about five feet from the ground, has attained a diameter of five or six inches, it is headed down. The summit of the stool, just below the cut surface, is girded by a willow withe four or five times, so tightly as to become slightly imbedded in the bark, and the top is covered with a thick lump of clay. Shortly after this a crop of shoots rises from the whole circumference of the b[illegible] the tree, which is thinned to the

number that it is supposed will thrive. These also, as they reach a sufficient growth, are removed, and repeated crops of poplar staves are in this manner obtained.

The animals of Ladakh of the domestic species are horses, asses, yaks, cows, the Zho or Yak-mule, sheep, goats, dogs, &c. Of these the horses are small, but active and hardy; they are not numerous nor much used. The yak is found only on high lands, and is inferior in appearance and strength to that of Chan-than. The males are applied almost solely to the transport of burdens. The neat cattle are kept entirely for milk and butter, the consumption of which latter, especially with tea, is very considerable.

The Zho is a hybrid, between the male yak and the cow: the male is employed as a gelding for carrying loads and for ploughing, in which latter occupation he is remarkable for docility and endurance. The female Zho is not strictly speaking a mule, but her progeny degenerates.

The native breeds of sheep, though larger than those of India, are much smaller than the sheep of Chan-than. one

one. In the eastern parts of the country is a nondescript wild variety of horse, which I may call Equus Kiang. It is, perhaps, more of an ass than a horse, but its ears are shorter, and it is certainly not the Gur-khor, or wild ass of Sindh. Its activity and strength render its capture difficult. A mouse nearly three times the size of the English mouse, with a thick coat of gray fur, and a tail one-third of an inch long, is met with. Hares in some parts of Ladakh are found in considerable numbers, as has been noticed already; and I obtained skins of the squirrel, fox, ounce, bear, lynx, and leopard, although I did not meet with them alive. The natives assert that there is a kind of tiger, or jaguar in the mountains, though rarely visiting the valleys. The marmot was seen in considerable numbers on some of the mountain-passes in summer, but in winter it had vanished, slumbering amidst the snow. The birds are not numerous, nor in general remarkable. One of the largest is the raven, which is a fierce and powerful bird, of a lofty and active flight in summer, but sullen and dull Another large bird is the

gigantic chakor, which is much larger than the common partridge. Sparrows, linnets, and robin redbreasts, are numerous and mischievous at seed time and harvest. The crested skylark sings as sweetly as in England, and the gelinok or snow-lark frequents the higher regions. Water-birds of various descriptions haunt the pools and lakes which are dispersed through Ladakh. Fish abound in all the streams, but the chariness of life which is taught by the religion of Buddha, prevents their being caught, notwithstanding they would form so important an accession to the means of subsistence available in such a region.

Of the mineral productions of Ladakh little information was procured. There are a few mines of sulphur in some parts, but in Chan-than it is abundant. Soda is found in great plenty along the banks of the eastern branch of the Indus, and in the district of Nobra. Lead and iron are found in pits, and other mountain districts remote from Lé, and copper mines are said to have been discovered towards Kashmir. Scantiness of fuel, and the unenterprising cl[illegible]er of the

people, however, prevent their being worked. Gold is frequently found in the rivers of Chan-than, and it was also discovered in the sands of the Shayuk. The government, however, stopped the search, lest its collection should be followed by a bad grain harvest, as some Lama had formerly, either from policy or superstition, predicted. In some parts of Chan-than a superstitious belief prevails, that lumps of native gold, occasionally found in the mountains, belong to the Genii of the spot, who would severely punish the human appropriation of their treasures.

CHAPTER III.

Divisions—Lé, the Capital—Construction of Houses—Palace of the Raja — Population — Revenue — Domestic Institutions—Dress—Ornaments—Diet—Government—Raja—Chief Officers—Historical Notices—Religion—Lamas—Religious Assemblies—Figures of Chenresi — Chamba—Dramatic Representation—Masks —Amusements—Mohammedanism —Commerce —Wool Trade—Shawl Wool—Sheep's Wool—Asli Tus—Tea—Teas of Bisahar—Miscellaneous Articles — General Character of the Trade—Whether to be in the possession of Britain or Russia.

THE principal perganas or divisions of Ladakh are, Nobra on the north, Zanskar on the south, and Spiti or Piti on the south-east. Ladakh Proper occupies the centre, extending along both banks of the river. Lé, the capital of Ladakh, is situated in a narrow valley, formed by the course of the Sinh-khabab, and bounded on the northern and southern sides by a double chain of mountains running east and west, the highest of which are from eighteen hundred to two thousand

feet above the plain. It is built at the foot and on the slope of some low hills, forming the northern boundary of the valley, and separated by a sandy plain about two miles broad from the river. It is enclosed by a wall, furnished at intervals with conical and square towers, and extending on either side to the summit of the hills. It is approached by a double line of the sacred structures or manis, frequently noticed in the journal, and houses are scattered over the plain without the walls on either hand. The streets are disposed without any order, and form a most intricate labyrinth, and the houses are built contiguously, and run into each other so strangely, that from without it is difficult to determine the extent of each mansion. The number, it is said, is about a thousand; but I should think they scarcely exceeded five hundred. They vary from one to two or three stories in height, and some are loftier. The walls are in a few instances wholly, or in part of stone, but in general they are built with large unburnt bricks: they are whitened outside with lime, but remain of their original colour inside. They are usually furnished

with light wooden balconies; the roofs are flat, and are formed of small trunks of poplar trees, above which a layer of willow shoots is laid, which is covered by a coating of straw, and that again by a bed of earth. In rainy weather this is a very insufficient defence, as the water soon softens the earth, and pours down into the apartment: the stairs are formed of rough stones. The rooms, though frequently of good size, are low, rarely above seven or eight feet high; and the ceilings are made like the roof, of poplar beams, supporting slender willow sticks or laths, sometimes peeled and laid quite close together, and covered with earth. In the houses of the poorest classes the roofs are commonly made of branches of poplar, with the leaves on. In those of persons of rank, as the Raja and Khalun, the ceiling is of wood, arranged in squares or lozenges, stained and painted. The main rafters are supported by cylindrical or square pillars of wood, the top of which under the truss, is in the houses of the peasantry encircled by a band of straw and ears of wheat, forming a primitive sort of capital. It is the custom, I was told, to

consecrate the two or three first handsful of each year's crop to a spirit who presides over agriculture, and these bands are thus deposited: sometimes rams' horns are added to this decoration. The top of the pillar is everywhere carved into the form of hatters' blocks, one inverted on the other, and separated by a circular ridge; and in the houses of persons of distinction, carved, painted, and gilded, as are the trusses between the capital of the pillar and the beam. The most considerable building in Lé is the palace of the Raja, which has a front of two hundred and fifty feet, and is of several stories in height, forming a conspicuous object on the approach to the city. This, as well as the houses in general, diminishes in extent as it rises, and the whole town at a distance has much the appearance of a cluster of houses of cards. The temples are built of the same materials as the houses, and pillars of timber, like those in private dwellings, support the beams, being little more, in fact, than the stems of the willow or poplar stripped of their bark and painted. None of the houses have any mode of excluding the weather,

except by curtains suspended before large open windows in the balconies, or shutters closing small slits or loop-holes in the walls; nor are the rooms provided with chimneys, and the smoke from the wood fires is not only offensive and suffocating, but often productive of lasting mischief to the eyesight. In the kitchen there is sometimes a square hole which acts as an imperfect ventilator. The doors are made of planks of poplar mortised together: iron nails are rarely used, as they are too costly, for although there is plenty of the metal, it cannot be wrought for lack of fuel, and such iron implements and utensils as are used are of foreign importation. A few felts and sheep-skins, and a bench or two with a large box, constitute the principal articles of furniture. The floor serves for chair, table, and bed, and is not unfrequently shared with sheep and goats, and swarms with more exceptionable tenants.

The population of Lé, as of the country at large, is of the Tibetan stock, but a very considerable number of Kashmirians are domesticated at Lé, and a mixed race has originated from them and the women of the coun-

try, termed Argands. The Kashmiris and their descendants are engaged in commerce, and the lower orders follow the business of butchers, cooks, and petty retailers. There are also some Turani merchants, and in the lands of Chushut a colony of Balti Mohammedans is established. According to such information as could be obtained, the whole population of Ladakh may be between one hundred and fifty thousand and one hundred and eighty thousand, of which two-thirds, at least, are females.

There is not much wealth in the country, but what there is is equally diffused, and the great body of the people are in easy and comfortable circumstances, owing chiefly to the valuable fleeces of their goats. They pay no money-taxes to the state, but are bound to suit and service, both domestic and military, and furnish contributions in kind for the support of the Raja and the governors of districts. Thus the inhabitants of the country about Lé supply the Raja with fuel, milk, butter, tea, grass for his cattle, servants for his person, and labourers in his fields. These contributions press very heavily upon

the industry of the people, particularly where their rulers are avaricious and rapacious, a character unluckily too common.

The Ladakhis are, in general, a mild and timid people, frank, honest, and moral when not corrupted by communication with the dissolute Kashmiris, but they are indolent, exceedingly dirty, and too apt to be addicted to intoxication. The Kashmirians here, as well as everywhere else, are notorious for every kind of profligacy, and where they abound the people of the country are tainted by similar vices.

They have some singular domestic institutions. When an eldest son marries, the property of his father descends to him, and he is charged with the maintenance of his parents. They may continue to live with him if he and his wife please, if not, he provides them with a separate dwelling. A younger son is usually made a Lama. Should there be more brothers, and they agree to the arrangement, the juniors become inferior husbands to the wife of the elder: all the children, however, are considered as belonging to the head of the family. The younger bro-

thers have no authority, they wait upon the elder as his servants, and can be turned out of doors at his pleasure, without its being incumbent upon him to provide for them. On the death of the eldest brother his property, authority, and widow devolve upon his next brother.

The women of Ladakh, in consequence of their great proportionate number, find it difficult to obtain subsistence, and besides domestic occupations and wool-picking, in which they are very expert, they are the principal labourers in the fields. They are a very lively good-humoured race, and scolding and railing are almost unknown amongst them.

The severity of the climate renders the use of warm clothing indispensable, and woollen cloths are worn by all orders and both sexes. The men wear close dresses of cloth made in the country, next their body, over which those who can afford it throw a full mantle or gown of European broadcloth lined with lambswool, or in summer of flowered chintz. The inferior classes wear mantles of sheepskins with the wool inwards: both wear

broad girdles or kammerbands of some kind of cloth, in which they stick daggers, sometimes richly ornamented, knives, and chakmaks, or flints. The cloth worn by people of property is dyed of an imperfect black, or dark-brown colour. The Lamas wear red or yellow, according to their order. The dress of the Grand Lama at Lassa is yellow, but that of the chief Lamas in Ladakh is red. Many of the religious persons, male and female, or Gelums and Anis, dress in the former colour. The poorer classes wear the cloth as it comes from the loom. The woollen cloth manufactured in the country, although thick and strong, is soft, and of a regular thread and fabric. It is very cheap, —a piece a foot broad, fifteen yards long, and weighing five pounds and a quarter, may be purchased for about three rupees. The men wear caps of the same general shape for all ranks, and differing in the material only. That of the Khalun, as of the other chief officers, was made of velvet—silk velvet of Russian fabric. It was lined with cotton cloth starched, to give the cap firmness: the lower half of the lining was formed

of China brocade, which when the cap was put on was doubled up, and constituted an outer bordering: to render this the more easy a perpendicular slit was made in the back part of the rim. The caps of the lower classes are generally made of black cloth: they are shorter, and the tops fall over on one side or other, whilst those of persons of rank are erect.

The dress of the women consists of a jacket, with sleeves fitting, though loosely, to the shape, with a collar half way up the neck. Continuous from the jacket fall bands forming the frame-work of a petticoat, the spaces between being filled up with narrow stripes of various colours, about two inches broad at the bottom, and narrowing to a point at top, making the lower edge of the petticoat of much greater extent than at the waist: as many as eighty or one hundred of these stripes may be comprised in the whole circumference. Over the shoulders, and fastened with a loop and button on the right shoulder, is worn a mantle of sheepskin with the wool inwards, and covered exteriorly with coloured cotton or woollen cloth, with

China satin or Benares brocade, according to the means of the wearer. Both sexes wear stockings—they are of three kinds: of sheep's wool felted, of sheep's wool knit, and of goat's wool knit. The former is the most common. They are in various shapes, as long stockings reaching above the knee sown into shape, the same cut out of felt, and joined behind, and simple leggings, reaching from below the knee to the ancle. The second sort is that most in use. The foot part is made by wearing, being very imperfectly shaped in the original. The stockings are bound at top, and sometimes decorated on the legs with a fillet of coloured silk. The leggings are fastened with a long coloured band of cross gartering. One kind of stocking, made of shawl wool, is fancifully decorated, and is very showy. For summer wear half stockings of cotton are imported from Kashmir and Kabul. Both sexes also wear boots, the soles of which are of thick leather, like those of the Chinese, whilst the leg part is either of leather or of strong stiff cloth. This is an article of dress in which the Ladakhis take much pride, and the commonest boots are

dyed of some bright colour, and have the seams embroidered. Some of the wealthiest have boots of Russian or Chinese leather, or of goat or sheepskin dyed red, and glazed, the seams and welts of which are of gold cord, or are decorated with embroidery in silk, or gold and silver twist. Instead of thick soles, green slippers, iron shod, with high heels, are used. Some of the most ordinary kinds are made in Ladakh, but the more ornamented boots come from Lassa and from Kashmir.

The men do not wear many ornaments,—the principal consisting of large ear-rings and a small cista, or box of gold, decorated with turquoises, or of less costly materials, and containing some sacred text, by way of amulet, which is suspended from the neck. The women are more gaily decorated, but their chief ornaments are the head lappet, a stiff necklace or collar, and ear-rings or oreillettes. The first is like that we noticed in Lahoul, consisting of a piece of cloth lying flat on the top of the head, and descending to the waist, or lower, bearing turquoises, carnelians, and amber beads in

transverse rows. The hair, tressed in narrow plaits, is assembled in a queue, which is lengthened by tassels of coloured worsted, intermixed with shells, bells, and coins, until it nearly touches the ground. On either side of the lappet on the top of the head festoons of small pearl descend to a little below the ears, and are united and knotted above and below with an ornament of jewellery, and persons of rank have strings of coral hanging over either shoulder. The most costly ornament is the collar, a stiff band of silver or gold, more or less wrought, bound with strings of coral, pearls, or silver beads, and studded with turquoises in flowers, encasing the neck: below this a necklace of several tier of large gold and silver beads, intermixed with turquoises, descends low on the bosom. Some notion may be formed of the composition of this collar from the price, which is about forty pounds. Its effect is rather heavy than rich, and amongst the women of the Mohammedan Ladakhis is discarded for a more simple necklace. At Lé a curious appendage to the head-dress is worn, which might be termed an oreillette. It is

an oval piece of seal-skin, which, confined under the side tresses, covers and conceals the ear, the edge projecting beyond which is fringed with fur, whilst the outer part is covered by brocade. In general the head has no other cover than the lappet, but on gala days a flat circular hat of seal-skin rises like a fan from the crown. The face on such occasions is smeared with the pulp of the fruit of a kind of bella-donna, which has the effect of glazing, and detains, by its viscidity, a number of small flat seeds, which are thought still farther to improve the beauty of the countenance. A Ladakhi female in full costume would cause no small sensation amongst the fashionable dames of a European capital.

The diet of the Ladakhis, and of the Tibetans generally, is nutritious and wholesome, and is remarkable for the prominent share which is taken in it by tea. All classes of Tibetans eat three meals a day. The first consists of tea, the second of tea, or of meal porridge if that cannot be afforded; the third of meat, rice, vegetables, and bread by the upper, and soup, porridge, and bread by the lower classes. For a breakfast of ten per-

sons this would be the preparation: about an ounce of black tea, called here zancha, and a like quantity of soda, are boiled in a quart of water for an hour, or until the leaves of the tea are sufficiently steeped. It is then strained, and mixed with ten quarts of boiling water, in which an ounce and a half of fossil salt has been previously dissolved. The whole is then put into a narrow cylindrical churn, along with the butter, and well stirred with a churning stick till it becomes a smooth, oily, and brown liquid, of the colour and consistence of chocolate, in which form it is transferred to a tea-pot of silver, or silvered copper, or brass, for the richer classes, ornamented with flowers and foliage, and grotesque figures of leopards, crocodiles, dragons, or heads of elephants, and the like, in embossed or fillagree work. The poorer people use plain brass or tinned copper tea-pots. Each man has his own cup, either of China porcelain, or, which is more common, made out of the knot of the horse chestnut, edged or lined with silver, or plain. About five thousand of these, in the rough, are annually exported from Bisahar to Gardokh,

and sold at the rate of six for a rupee: they are finished and ornamented in China. The latter kind of cup contains about a third of a pint, the China cup something less. Each person drinks from five to ten cups of tea, and when the last is half finished he mixes with the remainder as much barley meal as makes a paste with it, which he eats. At the mid-day meal those who can afford tea take it again, with their wheaten cakes, accompanied with a paste of wheat flour, butter, and sugar, served hot. The poorer people, instead of tea, boil two parts of barley flour with one of water, or meat broth seasoned with salt until it becomes of the thickness of porridge. The evening meal of the upper classes is formed of some preparation of the flesh of sheep, goats, or yaks, and eaten with rice, vegetables, and wheaten cakes, leavened or unleavened. The poorer classes eat at night the same barley porridge as at noon, or a soup made of fresh vegetables, if procurable, or of dried turnips, radishes, and cabbages, boiled with salt and pepper in water, along with pieces of stiff dough of wheat flour.

The use of tea has been common amongst the wealthier Tibetans for some centuries, but it has been universal only within the last sixty years. It has extended itself within the same period to Bokhara and Kashmir, and is becoming general in the Panjab and Kabul.

The Tibetans never drink plain water if they can avoid it. The wealthier drink grape juice and water, or sherbets; the poorer a beverage called Buza by the Kashmiris, and Chang by the Tibetans, which is made from barley. The grain is boiled until it is soft, and then dried; to about ten pounds of this softened grain, three ounces of the dough used for wheat cakes, but dried and pounded, are added, and the mixture is put into a bag, and kept in a warm place until it ferments, which it does usually in two or three days. Equal measures of the prepared barley and cold water are put together in an earthen vessel, and after standing for two days the fluid is strained off; a similar quantity of water is again added, and treated in the same manner, and the beverage is the liquor called Chang. This is sub-acid, somewhat resem-

bling palm juice when it begins to ferment, but neither so palatable, nor so potent, although it is said to be inebriating if drunk immoderately. The grains remaining after infusion are dried and ground into flour*.

The government of Ladakh is a simple despotism, but it is curiously modified by the circumstances of the people and the influence of the hierarchy, so that unless a person of more than common talent and energy, the Raja is an individual of little real power, and may be deposed or elevated at pleasure; his successor in the former case being a member of the reigning family. During the early part of my residence at Lé, a revolution of this kind had nearly taken place. At a solemn festival, at which the Raja presided, a Lama of great celebrity as an astrologer was interrogated by the former, publicly, as to the events of the coming year: an abundant harvest was the reply to the

* Many other particulars characteristic of the people of Ladakh may be found in the journals of Mir Izzet Ullah (*Calcutta Quarterly*, March, 1825), and of Gholam Hyder (*Asiatic Journal, N. S.* vol. xviii.)—Ed.

first interrogation. The second was, What consequences would result from the novel visit of Europeans? Nothing but good, was the answer; but the Lama becoming the interrogator, demanded of the Raja what he dared to expect? and then, turning to the people, he declared to them, that the Raja by his tyranny had become unworthy to reign, and called upon them to depose him, and seat his son upon the throne. The proposal was received with acclamations. The Lama professed to be unconscious of what he had uttered, and the intimation was received as the voice of Heaven. The Raja was confused and frightened, and announced his readiness to abdicate in favour of his son. His Rani, a Mohammedan by birth, was less accessible to the terrors of superstition, and easily detected in the Lama's pretended inspiration an intrigue instigated by the Lompa, who had been affronted by the Raja, and whose wife was the nurse of the heir apparent. Assisted by the Khalun, a strong party was made by the Rani in her husband's favour; and when the assembly was convened, at which his renunciation of his rights was to have taken place, he declared his

resolution to maintain them, and threatened his enemies with punishment. There the business terminated. The Raja retained his authority, the Lompa his office, and the Lama his reputation and immunity.

The present Raja of Ladakh was a Lama, but on the demise of his elder brother was called from his convent to the sovereignty. He is said to be rapacious, but his prevailing qualities are extreme timidity and indolence, and he relinquishes the management of affairs entirely to the Khalun, passing his time in personal indulgence at different mansions in the country suited to the change of seasons. In the winter he resides at Lé.

The young Raja, his son, is said to be a youth of talent and activity, but his education in Tibetan legendary lore, and his close confinement to the walls of the palace are not favourable either to intellectual or physical energy.

The business of the government is administered by the Khalun, or prime minister, assisted by the Nuna Khalun, or deputy, the Lom-pa, or chief municipal and military officer and governor of Lé, the Chug-zut, or treasurer, who is a Lama, and the Banka, or

master of the horse. The administration of the districts and towns is entrusted to inferior Khaluns, or Tan-zins, or Rajas. A second Chug-zut is the superintendent of customs, and the business of the magistracy is discharged by officers called Nar-pas, and by the head men of the villages. Most of these are paid by assignments of land, and by claims on the people for contributions of articles of daily use. The Raja, the Khalun, and the Lom-pa also divide between them the produce of the imposts on merchandise in transit, and they all carry on a trade in shawl wool and tea, from which their principal income is derived. The present Khalun, though advanced in years, has a shrewd apprehension and sound judgment, but, being of a pliable and timid disposition, he is easily influenced by the persons about him, and is sometimes led to adopt measures of which his deliberate consideration disapproves. He is accused by foreign traders of rapacity, but I saw no reason to credit the justice of the charge.

The military force of the country consists merely of the peasantry, who are called upon to serve occasionally in disputes with the

neighbouring states. These are generally adjusted without any very sanguinary appeal to arms, as may be supposed from the cowardice of the soldiery, and the inefficiency of their equipment. In a late contest with Balti, although the cavalry were tolerably well furnished with bows and arrows, the infantry had but one matchlock for ten men, and one sword for six.

The earlier history of Ladakh is that of Tibet in general, as it originally formed one of the provinces of that kingdom, governed as to temporal matters by an independent prince, and in spiritual affairs by the Guru Lama, or chief pontiff of Lassa. Subsequently the Chinese extended their authority over Tibet, and appointed the temporal ruler, but Ladakh seems to have retained its own princes. About a century and a half ago, the Kalmak Tartars invaded Ladakh, and occupied Lé, and the Raja flew to Kashmir, and implored the aid of Ibrahim Khan, the governor of that province in the reign of Aurangzeb. With the permission of the emperor, and on condition that the Raja became a Musselman, Ibrahim Khan led a body of troops into Ladakh, expelled the

Tartars, and replaced the Raja on the throne, by the title of Akabal Mahmud, conformably to his new faith. A mosque was erected in Lé, which is still kept up. The son and successor of the Raja reverted to the national creed, and the apostacy was overlooked at *Delhi in consideration of the encouragement* given to Mohammedanism in the country, and a small annual present or tribute paid to the governor of Kashmir as the representative of the emperor. When the Afghans became masters of Kashmir they exacted the continuance of this tribute, and now that Ranjit Sinh has conquered that province, he demands the like annual payment. At the same time the ruler of Ladakh pays a tribute, disguised under the name of a present, to the authorities of Gardokh, on behalf of the government of Lassa, and there can be no doubt that the principality would soon become wholly dependent upon some of its more powerful neighbours if it were not for their mutual jealousies and fears*.

Of the language and literature of the coun-

* Late advices from India represent Ladakh to have been taken possession of by the Sikh.—Ed.

try I must confess myself incompetent to offer any account. On my journey to Dras I was met by Alexander Csoma de Körös, a European in the garb of an Armenian, who had travelled over land from Hungary to Tibet. He remained with me some time, and after I had quitted Ladakh I obtained permission from the Khalun for him to reside in the monastery of Yangla in Zanskar, for the purpose of acquiring a knowledge of the Tibetan language, and from his erudition and acquirements accurate information on these points may be expected *. The Lamas are

* An account of this enterprising traveller and scholar, furnished by himself to the political agent at Sabathu, in January, 1825, has been published in the *Journal of the Royal Asiatic Society*. Mr. Csoma Körösi afterwards proceeded to Calcutta, and continued to reside there, engaged in communicating to the public, under the patronage of the Bengal government and the Asiatic Society of Calcutta, the results of his acquaintance with the language and literature of Tibet, of which he is the first European who has attained a critical knowledge. In the beginning of 1834 he published, at Calcutta, a Tibetan and English dictionary, and at the end of the same year a grammar of the Tibetan language. Before the appearance of these useful publications he had communicated to the Asiatic Society of Bengal notices of the contents of the two great collections in which the principal works of the literature and religion of Tibet are comprehended, the Kah-gyur, a collection of one hundred large volumes, and the Stan-gyur of two hundred and twenty-five. Of the former Mr. Csoma also prepared a detailed analysis, part of

the repositories of all the literature of Tibet, and have a number of printed books in use, relating chiefly to religious subjects.

To the same authority I must refer for an authentic view of the religion of Ladakh, which, like that of Tibet and China, is the worship of Buddha, under a peculiar hierarchy. Every family in which there is more than one son furnishes a Lama or Gelum, who is at once a cænobite and a family priest, attached to a monastic institution under a Lama, or abbot, and ordinarily living amongst the people, and conducting the rites of their daily worship in their own houses, in which a chamber is usually appropriated to an image and an attendant priest. The chief Lamas are appointed from Lassa, and continue to acknowledge the su-

which is printed in the twentieth volume of the *Asiatic Researches.* A summary account of both these works, compiled from his information, is printed in the *Calcutta Gleanings of Science*, vol. iii., and an abridgment of his analytical view of the whole of the Kah-gyur, in the first volume of the *Journal of the Asiatic Society* of Bengal. He has also furnished to the same periodical several interesting papers on subjects connected with Tibetan literature and the religion of Buddha in that country. Late advices mention his having left Calcutta on a journey to the north-eastern frontier of the British possessions.—Ed.

premacy of the pontiff of that city. They all profess poverty and celibacy, but a man who has been married is admissible into their order. There are also establishments of religious females, called Chumas or Anis. The Lamas, Gelums, and Anis, or priests, monks, and nuns, are divided into two sects—the red, or old, and new, or yellow priesthood, and both possess numerous monastic and conventual establishments. They by no means confine themselves to strictly religious duties, but take an active share in the cultivation of the lands, the rearing of sheep, and goats, and the fiscal and political administration of the country.

With regard to their religious belief and practice it seems to be a strange mixture of metaphysics, mysticism, morality, fortune-telling, juggling, and idolatry. The doctrine of the metempsychosis is curiously blended with tenets and precepts very similar to those of Christianity, and with the worship of grotesque divinities. The Lamas recognize a sort of trinity, or a triad consisting of a paramount deity, a prophet, and a book, and the people are exhorted to truth, chastity, resig-

nation, and mutual forbearance, and good will. A number of images are observed in their temples and chambers, to whom incense, fruit, and meal are offered, and hymns and prayers are addressed: yet these images are not considered as the representation of the highest order of beings, of Buddha himself, or of his manifestations. In the audience chamber of the Khalun we observed the representation of a female divinity, with a green face and red eyes, sitting cross-legged upon a lotus. Portraits and figures of Sakyamuni are also frequent. On a wall in one of the temples I noticed a fresco painting representing the world, and the various conditions of its inhabitants, as well as their trial after death, in which some were ascending to heaven, some were going down to Tartarus, and others were passing through various transmigrations by creeping through a vessel shaped like a dice box, at one end of which, for instance, was seen the head of a fish, and at the other the legs of the man who was undergoing the metamorphosis.

I was present on more than one occasion at their religious ceremonies, to which they

made no hesitation in admitting me. In the temple of Chenresi I witnessed the consecration of food for the use of the souls of those condemned to hell, where it seems they would otherwise starve. The Kashuk Lama presided, and was seated above the other priests. I was placed close to him, and the other assistants were ranged in cushions along the wall. The Lama consecrated barley and water, and poured them from a silver saucer into a brass basin, occasionally striking two brass cymbals together, reciting or chanting prayers, to which an inferior Lama from time to time uttered responses aloud, accompanied by the rest in an under tone. After the ceremony, tea was served round. Chenresi, the god of the dead, is a male figure of the middle size, in a sitting attitude, having four arms, the two outermost elevated, and the two inner raised and joined as if in prayer. The features were mild, and the expression agreeable; the whole person was coated with gold. The head was encircled by a tiara of thick plates of gold, resembling large leaves, which were studded with turquoises, and his breast was covered

by a net-work of the stones, intermixed with small rubies and emeralds of no great value.

One of the principal temples at Lé is dedicated to the god Chamba, in the figures of which, although the person is male, the countenance is female, and the whole appears to be an androgynous type of the powers of nature. Chamba has also four arms, of which the upper one on the right holds a rosary, and the lower is open, with the palm turned forwards; the upper one on the left has some flowers, and the lower holds a water-jug: the figure is seated, and is naked except at the waist, from which a short petticoat depends; but the lower limbs are very commonly concealed by passing through the floor into a lower chamber. Chamba is decorated with bracelets and a necklace, and the head is surmounted by a tiara; the hair is raised in front, but flows down the sides and back in matted tresses. The ears are long, as if elongated by the weight of their heavy ear-rings. The eyes are small, with the lids drooping in the centre, indicative, it is said, of contemplation: the character of the countenance in this, as in all the figures

in the temples of Tibet, is Tartar; but a colossal representation of Chamba, cut out of the rocks near Molbi, had the features of a Hindu, with the peculiarity of wearing the Janu or sacred cord of the Brahmins.

The religious service of the Lama, which is performed daily at the Gom-pas, or temples attached to monasteries, consists chiefly of prayers and chanting, in which the formula, "Om manipadme hum," is frequently repeated, and the whole is accompanied with the music of wind instruments, chiefly harmonizing with tabrets and drums. Amongst the former is a sliding trumpet of large size, which is upheld by one man whilst blown by another, and has a very deep and majestic intonation; a hautboy, the reed of which is surrounded by a circular plate covering the mouth, and the conch shell with a copper mouth-piece: metallic cymbals, much more mellow and sonorous than others, complete the band. These musical accompaniments are not confined to temples, but form part of the state of the higher secular dignitaries, and the Raja is always preceded by minstrels and musicians when he leaves his palace.

On religious festivals part of the ceremony consists in rude dramatic representations by the Lamas, of animals, of human persons, or supernatural beings, and the masks which are worn on these occasions surpass in ingenuity and grotesqueness those of all ancient or modern times. They are not unfrequently modelled after nature, and I witnessed the representation of a Darby and Joan by two Lamas, the features of which were exaggerated portraits of an old couple in the city. The persons so disguised perform dances, which are said sometimes to have a mystical or symbolical import.

Dancing is a favourite amusement of the Ladakhis, with both men and women, but the performances are in separate bodies. Singing is also one of their recreations, and is remarkable rather for vociferation than melody. A very favourite diversion is that of Polo, the Chaugan of the Persians, in which two parties on horseback, furnished with long light rackets, attempt to drive a ball beyond certain boundaries, the one that first effects it being the victor.

In the western provinces, and those bor-

dering on Balti and Kashmir, the Mohammedan religion is spreading rapidly, and effecting a material change in the habits and character of the people. One good effect is its promotion of temperance by the prohibition of chang and fermented drinks, but on the other hand it has introduced much more dissoluteness, dishonesty, and disregard for truth, than prevails in those places where Lamaism still predominates.

The commerce of Ladakh is of no great value or interest as affects the produce or consumption of the country itself, although both may be taken into account in the general result. Its chief consideration, however, arises from its centrical situation, by which it becomes the great thoroughfare for an active commercial intercourse between Tibet, Turkistan, China, and even Russia on one hand, and Kashmir, the Panjab, and the plains of Hindustan on the other.

One of the most important articles of the trade of Ladakh is shawl wool, of which it forms, in some degree, the source, but in a still greater, the entrepôt between the countries whence the wool is chiefly supplied, Rodokh

and Chan-than, and that in which it is consumed, Kashmir. The wool is that of a domesticated goat, and consists of the under fleece, or that next the skin beneath the outer coat of hair; the breed is the same in Ladakh as in Lassa, Great Tibet, and Chinese Turkistan, but the wool is not so fine as in the breeds of the districts on its eastern and northern frontier. The fleece is cut once a year, and the wool, coarsely picked either in the place from whence it comes, or at Lé, is sold by the importers to the merchants at that city, by whom it is sent on to Kashmir. The Raja and Khalun deal extensively in this trade, but it is also shared by merchants, both from Kashmir and Turan. About eight hundred loads are annually exported to Kashmir, to which country, by ancient custom and engagements, the export is exclusively confined, and all attempts to convey it to other countries are punished by confiscation. In like manner it is considered in Rodokh and Chan-than as illegal to allow a trade in shawl wool except through Ladakh; and in the latter country considerable impediments are opposed to the traffic in wool from Yar-

kand, although it is of superior quality and cheapness. The hair of the goat after it is separated from the wool is made into ropes, blankets, and bags for home use, and as wrappers for bales of merchandise.

Although the fleece of the sheep affords a material similar to that of the goat, it is not in sufficient proportion, nor of adequate length, to be considered fit for the manufacture of shawls. It is, therefore, either worked up into woollen cloth, the greater portion of which is reserved for domestic consumption, and a small part is exported, or it is exported for a like manufacture to Kotoch, Chamba, and Kulu, and even to Kashmir. Some of this cloth shorn and singed into an imitation of long piled velvet, is not without merit as a fabric. The sheep of Chan-than are also articles of trade, as they are larger and stronger than the breeds to the westward, and being imported from thence, are re-exported to the hill states, where they are largely purchased as beasts of burden, carrying from twenty-five to thirty pounds weight.

Besides the fleece of the domesticated goat, that of the wild goat, under the denomina-

tion of Asali Tus, is exported in smaller quantities to Kashmir. It is of a light brown colour, and exceeding fineness, and is worked into shawls, a species of soft cloth called Tusi, and linings for shawl wool stockings; very few shawls, however, are made from this material. I purchased a small quantity of it at eight rupees the manwati: when picked, for which an additional charge of seven rupees was made, I received about five ounces, or one-eighth of the original quantity back in very fine shawl wool: another parcel yielded a fifth. In general the pickers of shawl wool are paid by the hair, but in this case the hair was considered unfit for making into ropes, &c. Shawls made from this material would be much softer, lighter, and warmer, than those of ordinary fabric. When without being picked the Asali Tus is worked into Tusi, it forms a warm, soft cloth, of a drab or gray colour, which is much worn in the hills. It is manufactured at various places in the Panjab. A piece bought at Amritsar for ninety rupees was sold at Delhi for two hundred and fifty, but the Tusi cloth which comes to Hindustan is made from a mixture

of the Asali Tus with other wool. This article must be always high priced from the difficulty of procuring the animal that produces it, the wild goat rarely venturing within gun-shot during the day, and being obtained only by snares at night, when they come down from the mountains to browse in the valleys.

The next article of importance in the trade of Ladakh is tea, the consumption of which in the country is very considerable, but which is also exported in large quantities to Kashmir and the Panjab. The teas of China are chiefly brought through Lassa, but some of the finer kinds are also imported by way of Yarkand. They are brought in square masses or lumps, consisting of the leaves firmly compacted as if they had been wetted, and in that state forcibly compressed: they are covered with coarse yellow paper, stamped with a seal in Chinese characters, and packed in the raw skins of yaks, the hair inwards, and the joints neatly secured by a sewing of thongs. The package, however, is an addition provided at Lassa, as the teas come thither in a package of grass. The

consolidation of the tea in square blocks or bricks, renders it more easy of transport by reducing its bulk, and obviating the necessity of wooden boxes; whether anything is used to give firmness to these masses, or for any other object, as to improve their flavour or colour is questionable, but an intelligent merchant at Lé informed me he had detected small pieces of kheir (gum catechu) amongst the tea. A strong infusion, however, failed to precipitate gelatine, and therefore the admixture was not confirmed. A Yarkandi asserted that an infusion of poppy-heads was employed to render the leaves of the tea adhesive, but the authority was not a very good one, and moisture and pressure are in all probability the only means resorted to for moulding the tea into this shape. Each block, called Dom by the Kashmiris, and Ponkah by the Lassans, weighs about four Delhi sers, or less than eight pounds avoirdupoise. The green is sold usually at the wholesale price of three rupees per ser, and the black at less than two rupees, and the retail price is nearly double.

A discovery of much interest occurred in

the course of my inquiries into the tea trade of Ladakh, and it appeared that a considerable importation of a vegetable product, used as tea, took place from the British dependency of Bisahar. According to information obtained from two intelligent natives of that province, the tea of Bisahar is of two kinds, green and black. The green tea is the produce of a shrub which is an evergreen, seldom exceeding four feet and a half in height. It grows in both Bisahar and Kulu on a dry soil, especially near the banks of the Setlej, and in greatest abundance about Jhagul, between Rampur and Sarai. New leaves appear at the end of April and the beginning of May, and are gathered from July to November: the peasants cut the smaller branches into pieces, and mix them with the leaves, selling the whole to traders at a maund for a rupee. The latter infuse this tea in hot water for some time, until it has imparted much of a reddish colour to the water, and then throwing the infusion away, squeeze and rub the leaves between their hands, and dry them in the sun. They say that if the first infusion were used it would

heat the body, and occasion pains in the limbs; but I drank some tea prepared from leaves which had not undergone this process, and experienced no ill effects. At Lé this is called Maun tea, Maun being one of their names for Bisahar, and sells at three paka sers for a rupee. It is not much in request.

The black tea of Bisahar is produced by a deciduous shrub found near the village of Asrang and Lipi, about seven days' journey from Rampur, and eight from Piti, in a situation more elevated than Jhagul. The leaves are put forth in April, and fall about October and November: they are plucked in July and August, and are sold to traders at the same price as the green. They are prepared in the same manner, but a colouring extract is in the first instance mixed with them, of which, after the first infusion, enough remains to tinge the water in which the tea is boiled. The leaves are dried and rolled in imitation of the China teas. This tea sells at fifteen Mohammed-shahi rupees per paka maund, and not less than a hundred maunds are annually imported into Lé. It is not much used by those who can afford to purchase the

tea of China, but it is very often mixed with the latter by the poorer people. I have drank of it freely unmixed, and found no inconvenience from its use. The infusion of the green tea of Bisahar is of a yellowish-green colour, with less aromatic flavour than that of China. The black yields an infusion of a dark red colour, but of little flavour. It was the opinion of Mohsin Ali, a wholesale dealer in tea to a large extent, that the teas of Bisahar differed from the coarser teas of China only in the mode of preparing them for the market.

That the tea plant grows more extensively through the hill tracts than has been hitherto imagined, is probable from various circumstances. At Shujanpur Tira a Mohammedan brought me the leaves of a shrub, which he stated the Gorkhas had pointed out as the tea plant, and an infusion of them was of the colour and flavour of green tea of inferior quality, or spoiled by long keeping in India; and it is said that the Chinese troops returning from Nepal were observed to gather the leaves of some shrubs near Zigachi, which they used as tea, disposing of their own

country tea in exchange for tobacco. These statements were communicated to the Bengal government in 1821. However this may be, the subject is of national interest, and well entitled to the fullest investigation *.

Besides shawl wool and tea the imports from the adjacent provinces of Tibet comprehend various articles of raw and manufactured produce, the latter principally from China. One of the chief articles of the former class is borax, which is brought through Ladakh from Bhot, sometimes by the Bhotias themselves, but more commonly by the people of Lahoul, who convey it to Kulu and Chamba, where it is refined, and whence it is conveyed to the Panjab and Hindustan, for the use of silversmiths and braziers. It is bought in Bhot at thirty-two battís, or one maund and twenty-four sers, Delhi weight, for a rupee. By refining it loses half its weight, but the thirty-two sers sell for five or six rupees. There is also a kind of smuggling trade carried on. The shepherds of

* The genuine tea plant has been recently discovered in the eastern districts of Asam, subject to British authority, and measures are in progress for its cultivation.—Ed.

these provinces receive a gratuity for pasturing the flocks of Kotoch, Chamba, &c., on the borders of Lahoul, but they sometimes take half the flocks with them to Bhot for borax, instead of leaving them to graze on the mountains, and are thus enabled to sell it at a lower price.

Another article of the trade is salt, which comes from the lakes and springs of Chanthan, partly for consumption in Ladakh, and partly for re-export to the hill states.

The manufactured articles are some plated and silver vessels, but they are chiefly materials of dress from China, as silks, velvets, and brocades. Silver is also imported in boat-shaped lumps, called yambos, stamped with Chinese characters, each lump weighing about one hundred and sixty rupees, and passing in the market for one hundred and eighty.

From Yarkand the chief imports are felts made from lambswool, a sort of camlet fabricated from the hair of the camel, dried sheepskins for cloaks, a small quantity of shawl-wool, and fine tea, yambo silver, steel for the formation of chakmaks, boots, Rus-

sian leather and brocades, velvets and broadcloth of Russian manufacture, horses and drugs. The greater part of these imports are destined for the Panjab.

From Balti, or Little Tibet, come vessels of grit-stone for cooking, and water-pots, and dried fruits, especially apricots, which are considered superior to those of Ladakh. About three hundred maunds are annually imported, partly for consumption in the country, and partly for export along with those of native growth: they are ordinarily bartered for wool. Of the Balti apricots two sers purchase a ser of goats' wool, and one ser is exchanged for two and a half of sheep's wool. The Ladakh apricots are much cheaper, and are commonly sold in ass loads, each load weighing about sixty sers, or a maund and a half paka.

The chief articles of import from Kashmir and the Panjab are shawls, chintzes, copper tinned vessels for culinary purposes, as cauldrons, chang pots, dishes, plates, tea-pots, spoons, and the like, and grain, intended chiefly for the consumption of Ladakh and the provinces of Tibet.

From the provinces south of the Himalaya various articles of domestic use are imported, as ghee, or butter, honey, raisins, and grain, for which they receive salt, borax, sheep's-wool, and gold dust. From Bisahar, also, tea-cups of wood are imported in considerable numbers, as has already been noticed, and a quantity of iron and iron utensils, the produce or manufacture of Hindustan, is also imported from that direction into Ladakh.

The general relations of the commerce with Ladakh, and through it with Tibet and Turkistan, are sufficiently obvious. They have their flocks and herds in abundance, provided with wool of peculiar properties, and admirably adapted for the finest manufactures. They have also some natural products of value, salt, borax, natron, and gold. They have no manufactures, and rear an inadequate supply of food. The latter can be plentifully supplied from the British provinces of India. Whether they shall be clothed with the broadcloth of Russia or of England—whether they shall be provided with domestic utensils of copper, iron, or of pewter, with implements of iron and steel,

with hardware of every description, from Petersburgh or Birmingham,—is entirely in the decision of the government of British India. At present there is little doubt to which the prize will be awarded, for enterprise and vigour mark the measures of Russia towards the nations of Central Asia, whilst ours are characterised by misplaced squeamishness and unnecessary timidity.

CHAPTER IV.

Notices of adjacent Countries—Chan-than—Rodokh—Gardokh—Yarkand—Khoten.

THE jealousies and fears of the neighbouring governments opposing our passage through the territories adjacent to Ladakh, prevented us from acquiring a personal acquaintance with them, but we were enabled to collect some details respecting their site and condition from intelligent natives, with whom we were in habits of intercourse, and upon whose reports every reasonable reliance might be placed. At present it will be sufficient to notice those immediately to the east and north, reserving those on the north-west for a future opportunity.

Along the eastern frontier of Ladakh, in an almost semicircular line, is the province

of Chan-than *. The more northerly portion forms a separate province, called Rodokh, which lies along the northern border of the lake of Pangkak, and continues by the valley of Chushul, from which the capital or fort of Rodokh is distant between three and four days' journey. The road passes by a small lake, called Tsurul (bitter), from the bitterness of its waters, and lies over sandy grass plains, which afford pasture to its sheep and goats. The fort itself is situated on a hill in the midst of an extensive plain, about twenty miles south-east from the extremity of the Pang-kak lake. The country is thinly inhabited, and the people are chiefly shepherds, who subsist by the sale of their wool to the merchants at Lé. It has a chief of its own, but he is subject to the authority of the Garphan of Chan-than. From Rodokh a road is said to cross the mountains to Khoten, and the journey is one of three or four days only. All attempts, however, to reach Khoten by this route are rigidly repressed by the Chinese.

* Or snow country,—known to the Bhotias as Hiun-des, and to the Tibetans as Nari. *Asiat. Res.*, vol. xvii. p. 45. *Jour. Asiat. Soc.*, vol. i. p. 124.—Ed.

South of the Sinh-kha-bab river the districts of Sumgiel and Tholing are immediately contiguous to Piti in Ladakh, and to the British dependencies of Bisahar and Kanawar. The chief town of the latter is situated on the left or southern bank of the Setlej, and is a place of considerable note. It is said to contain one hundred and eight temples, attached to most of which are a number of Gelums: the head Lama resides there during the summer, but in winter lives at Tashigon, near the left bank of the Indus, on the road from Ladakh to Gardokh. Further to the eastward, and along the Setlej river, is the district of Chaprang.

The larger division of Chan-than, called Garo, is in contact with Ladakh, on the line of the Sinh-kha-bab river. That river, at three days' journey from Kuk-jung, makes a short turn to the south, round the La Ganskil mountain, and then resumes its south-easterly direction. The road follows the course of the river, and is, in general, tolerably level, proceeding along sandy valleys, thinly coated with coarse pasturage, lying between bare and rugged hills. Within a

kos and a half of Gardokh, also called Gartokh, Ghertope, or Garo, the chief station, which is said to be distant six days' journey from the frontier, the Sinh-kha-bab is crossed, and followed along its right bank. The chief halting places on the route are merely shepherds' shelters, except in the case of Tashigon, which is a place of some extent. Gardokh itself, which I visited in 1812, in my journey to the Manasarovara Lake*, is little else than an encampment, consisting of a number of small blanket tents, with a few houses of unburnt bricks, of a similar description as the houses of Ladakh: it is, in fact, little more than a trading station, or mart, where in the summer months the natural productions of Tibet and China are exchanged for those of Hindustan and Kashmir. In the winter months it is almost deserted. The Sinh-kha-bab rises from the Kangri, or Kan-tisi, Tisi, or Kailas range, a short way to the south-east of Ghertope.

Chan-than is the chief resort of the shawl wool goat, and is also the pasturage of numerous flocks of sheep, whose wool is an article

* *Asiatic Researches*, vol. xii.

of trade. In the plain adjacent to Ghertope we saw at least 40,000 head of cattle, goats, sheep, and yaks, principally the two former. The number had been much reduced at the period of our arrival by an epidemic disease, which had spread throughout Tibet, and in many instances almost annihilated the flocks. In Ladakh four or five were very commonly all that remained out of as many hundred. The wool of Chan-than is sold to the Ladakhis alone, by virtue of an ancient agreement. The province also produces gold in considerable quantities, but the search after it is discouraged by local superstition, and by the Chinese authorities.

Chan-than was formerly subject to independent princes, but their authority gradually merged into the supremacy of the chief pontiff at Lhassa. It is still nominally under his government, but in 1792, the Gorkhas having invaded the southern provinces, the Dulai Lama called the Chinese to his succour. The Chinese drove back the Gorkhas, but took the opportunity of establishing their own power in Tibet, and two Ambans, sent from Pekin, now permanently resident at

Lhassa, engross the political administration of the state. From Lhassa, two officers, natives of the country, are sent to Gardokh as Garphans, who are relieved every three years. The subordinate management of the districts is intrusted to two officers, commonly called the Deba and Vazir, the former appointed from Lhassa, the latter a native of the place: with these the chief Lama of each village forms a sort of local council, dependent upon the authorities at Gardokh, who again are obliged to refer for instructions on all matters out of the common course of events to Lhassa.

On the north Ladakh is bounded by the Pamer or Karakoram mountains, a very rugged and difficult road through which leads to the province and town of Yarkand, or Yar-kiang. This is situated on a river, and is a town of considerable importance, being the great emporium of the commerce between Turkistan, China, and Tibet, and the seat also of an active traffic with Russia. The population is said to be between fifty and sixty thousand, almost entirely Mohammedan, Tajiks, Turks, and Uzbeks. About

sixty years before our visit to Ladakh the government of Yarkand was in the hands of the Uzbeks, but the chiefs quarrelling amongst themselves, one party invited the Chinese to their aid, and they seized the opportunity of establishing their power. Yarkand is now in the possession of China, and the political and military authorities of the city are Chinese. They allow the Mohammedans, however, to appoint a head man, or Hakim, from amongst themselves, by whom the civil administration is superintended. Besides the revenue derived from the customs, a poll tax is levied on all adult males. Yarkand is inclosed by a mud wall, and defended by a citadel, but it is a place of no strength. The Chinese are very jealous of the approach of strangers, and, as will hereafter appear, ultimately prohibited our paying it a visit *.

* It was visited, however, by Mir Izzet Ullah in his former journey, and many particulars relating to it are recorded in his *Journal*. Some further details were also collected by Lieutenant Burnes (*Travels*, vol. ii. p. 227) and by Timkowski (vol. i. p. 393). These accounts, however, in addition to the information derived from Marco Polo, the Jesuits, and the Chinese (Marsden's Marco Polo, p. 151), leave us with a very imperfect knowledge of Yarkand.—Ed.

Eastward from Yarkand, and separated by lofty mountains on the south, a continuation of the Karakoram chain, is the district of Khoten, which extends about twelve days' journey from east to west, and is not more than two days' journey from north to south. It has the country of Aksu on the north, and China proper on the east. The present cities are six in number, Karakash, Elchi, Yurung Kash, Chíra, Karia, and Yangi Kishlak *, of which, and of the country in general, the following particulars were collected from a respectable Turani merchant, who had often visited it, and from other creditable information.

Karakash, or city of the black river, is the first met with on the road from Yarkand, at the distance of one hundred and twelve kos,

* Mr. Moorcroft doubts the existence of the city of Khoten, although referred to by Marco Polo. In this he can scarcely be correct, for its position has been laid down not only by Chinese geographers but by the Jesuits, in lat. 37°, and long. 78° 15′ 30″. Klaproth, *J. Asiatique*, No. xvii., *Histoire de la Ville de Khoten.* Remusat. *Quarterly Oriental Magazine*, Calcutta, Sept. 1834. The probability is that one of the cities named in the text is the city of Khoten under a new appellation. Elchi, or, as it occurs in the maps, Ilitsi, is identified by them with the city called by older travellers Khoten.—Ed.

or, according to other accounts, at seven days' journey: it contains three thousand houses*.

Elchi, on the same road, ten or twelve kos from the preceding, contains about six thousand houses. It is the residence of two Chinese Ambans, with a detachment of five hundred soldiers, and of the chief of the Mohammedan population.

The third city is that of Yurung Kash, little more than a mile and a half from Elchi, containing a thousand houses.

Chíra, the fourth city, is situated three days' journey south from Yurung Kash, and contains two thousand houses. Karía is twice as large, and lies four days' journey south-south-east, and Yangi Kishlak is four days' distant from Karía in the same bearing, and contains about one thousand houses.

* The stages from Yarkand to Karakash are thus enumerated:—

To Kargbalik	20	kos.
„ Chaulak	5	„
„ Guma	20	„
„ Muji	15	„
„ Psalma	20	„
„ Zawa	20	„
„ Karakash	12	„
	112	

but these stages are, no doubt, in general much too long.

At the rate of six persons to a house, which is rather below the average of the houses of Ladakh, this would give one hundred and two thousand persons as the population of Khoten: perhaps ten thousand more may be added for its nomadic population.

The climate of Khoten is dry and salubrious: the winters are colder and the summers hotter than in Ladakh. The soil, though sandy, is productive, as water is abundant, and every house in the town is provided with a well. The greater part of the population is Mohammedan, and is said to be remarkable for personal beauty. The women are not subjected to out-door labour, as in Tibet, but are occupied principally in the rearing of silk-worms and spinning the thread. The men are engaged in agriculture, manufactures, and commerce.

The grains cultivated are wheat, barley, and maize. Pease and carrots are the chief vegetables. Fruit is reared in every garden, and of great variety, as pomegranates, plums, peaches, apricots, pears, apples, and melons: the vine is exceedingly productive. The timber trees, like those of Ladakh, scarcely

deserve the name, and are restricted to willows and poplars, but the mulberry abounds everywhere, and furnishes sustenance for the silk-worm, which is very generally reared.

The domestic animals are horses in great numbers, of a hardy breed, though small size. Yaks are bred on the mountains, and common neat cattle on the plains. Sheep of the Dumba, or large-tailed variety, are reared in vast numbers, but their tails are smaller than those of the Kozak sheep: their wool is fine, but short, being shorn twice a year. Shawl-wool goats are not less numerous than sheep, and their fleeces are reported to be equal, at least, to those of Ladakh.

Wild animals of various kinds are abundant. The camels are generally brown, sometimes white, and have two humps: they are large, and swift of foot, and are hunted for their flesh, which is eaten, and much relished by the natives, and for their wool, from which a kind of cloth is fabricated. The Gor-khar, or wild ass, is common, as are many kinds of deer, including the musk deer, the produce of which in Khoten has

been always highly celebrated throughout the East. From a description of the stripes on the skin it would appear that the royal tiger roams on the mountains of Khoten. Leopards, wolves, and bears are numerous,—none of the latter are black. Foxes, hares, and smaller quadrupeds are in abundance. The large variety of Francolin, which I believe has never been described, frequents the summits of the mountains, and the lesser kind, with other varieties of partridges and feathered game, are found in great numbers lower down and near the plains.

The manufactures of Khoten consist principally of woollens, camlets, cottons, and silks. The woollens got up in the loom are either of a thick and coarse texture, or thin and flimsy, and none of them approach the nature of European broadcloth. The felted cloths are large, fine, and well got up. Cotton cloths of a coarse kind are made in vast quantities, both for home use and exportation, and may be considered as the staple of the trade, although Khoten is more celebrated for its fabrics of silk. Various kinds of silk goods are fabricated, but they are

coarse and inelegant: from their cheapness, however, they are in general use through Turkistan and Tibet.

The commerce of Khoten is of some value and interest. From Russia it receives broadcloths, a fine cloth manufactured at Astrakhan from the wool of the camel foal of the first year, seal-skins, furs, green velvet, gold and silver thread for embroidery, Bulgar leather, hardware, amongst which are spades or hoes, logwood, loaf-sugar, and castor, which is used in medicine. The returns made through Turani merchants are silk cloths, raw silk, and cotton thread.

Raw silk, both white and yellow, is first taken to Bokhara, where it is dyed: it is then purchased by Nogai traders, and carried across the great Kirghiz steppe to various parts of Russia. Of cotton thread a thousand camel-loads annually are said to be furnished by Khoten to Russia.

The principal import from Bokhara is horses, of which about five hundred are brought yearly, and paid for by silks, raw silk, coarse cottons, and felts.

Similar articles are sent to Yarkand, Inde-

jan, Aksu, and Ila. To the first, also, large quantities of sheep's-wool, which is there wrought into felts, are supplied in exchange for rice and cast-iron culinary vessels. From Ila and Aksu, Khoten receives droves of horses, bred by the Kalmaks. To the former it sends yearly from two to three hundred thousand bales of a coarse cotton cloth like Bengal gazi. The length of each piece is from seven to eight gaz, or yards, the breadth about twelve girehs (from twelve to fifteen inches), and the money price is a rupee. They are also exchanged for the cattle of the Kalmaks, at the rate of one piece for a sheep, three for a cow, and six for a horse.

There was formerly an extensive trade between Khoten and Hindustan, but political changes have completely destroyed all but a very limited traffic, carried on through Yarkand and Ladakh with the Panjab. It is said that there was formerly a royal road from Najibabad to Sarikia, a place half way between Yarkand and Khoten, and that it led through Gardokh and Rodokh. In that case it must have crossed the Niti Ghat, but no traces of it are now visible in that line. On

my return from Manasarovara, however, I diverged from the common track, and came upon a fragment of road a few hundred yards in length, and about six feet broad, regularly and substantially paved with pebbles in some parts, and in others formed out of the levelled rock, which had every appearance of having been the work of a liberal and spirited government. According to the reports of the villagers, also, this was the rai, or badshah ki rah, the king's highway, on which, in ancient days, goods had been transported across the mountains.

The revenue which is drawn from Khoten by China is derived from two sources, the alban or capitation tax, commuted to a certain quantity of cotton cloths from every house, and a proportion, in some instances a tenth, of all produce, except garden fruits and silk. The currency of Khoten is of Chinese fabric, both silver and copper, or the usual lumps of the former, and the round flat coin, with a square centrical hole, of the latter. Uncoined gold, in grains and lumps, is also a medium of exchange.

The chief rivers of Khoten are the Kara-

kash, or black river, also termed Kara-darya, and the Yurung Kash, or rapid river. The former rises in the mountains of Khoten, and runs from east to west for twenty-four kos to Shahid Ullah Khajeh, and then north for twelve kos, where it receives the Toghri su, or straight water, which rises in the Karlik Dawan, or ice mountains. It then runs north-east to Karakash, which is situated on its left bank. The distance from its source to the city is about nine days' journey. Pursuing its course in the same direction past the city of Yurung Kash on its right bank, it unites with the Yurung Kash river.

This latter stream, the Yurung Kash, rises in the Haringa Togh, or blind mountain, at three days' journey east from the source of the Karakash. It flows in a straight line to the city of Yurung Kash. The beds of this river and of the Karakash abound with the Yashm stones, or jasper agate, which are highly prized by Asiatics for various ideal virtues. Vessels made of them are supposed to fly to pieces if poison be put into them, fragments of them about the person are ima-

gined to protect the wearer against lightning, and liquor from an agate cup is thought to allay irregular palpitations of the heart. The stones which are most free from specks and stains are considered the exclusive property of the Emperor of China, and the workmen employed to search for them are obliged to take the fruit of their labours daily to officers appointed to receive and inspect them. Guards are stationed along the banks to prevent their appropriating any to their own use, and to prohibit private individuals from engaging in the search.

The united stream of the Karakash and Yurung Kash flows into the river of Yarkand *. This river rises in the northern face of the Karakoram chain, and after running to the north-west some way is joined on the west by the Serakol river, a large branch from the Karakol Lake in the Pamer mountains, and then takes a bend to the east, past the city of Yarkand. From thence it pursues an easterly course through a distance

* This account omits some of the details given in the notice printed in the *Transactions of the Royal Geographical Society*, which were not confirmed by subsequent and, apparently, more accurate information.—Ed.

said to be of ten days' journey, and after passing the latitude of the city of Yurung Kash, receives the waters of the two chief streams of Khoten.

At three days' further journey, the river, the appellation of which I could not learn, is joined by a stream from the north, the river of Aksu: this is said to rise by several streams, some of which come from the high mountains to the north of Turfan. One is said to rise near Ila, and another in the country of the Kirghiz, each about twelve days' journey in length. These two unite with the others at the city of Turfan, or Yengi Turfan (New Turfan), and thence proceeding in one channel to Aksu, three days' journey south, and thence for five days' journey in the same direction, fall into the river of Khoten. The trunk continues eastward for six days' journey to Bai, a small town, and thence, in the same direction, successively to Sairam, at a distance of one or two days' journey, Kucha, of five days', Karashehr, the black city, of ten or twelve days', Urumchu, of ten or twelve days', and Uchi, or Old Turfan, of twelve days' more.

From thence it flows in the same direction, for a distance of forty days' journey, through an uninhabited tract of desert and mountain to Kamul, a large city in China.

The person from whom I received this information had been no farther than Aksu himself, but he had received the account of the course of the river onwards from a friend who had accompanied the Hakim of Yarkand to Pekin and back. According to this authority the river continues its course east from Kamul for twenty days' journey through a sandy desert to Lanju, the Lanchu of Marco Polo, a city containing fifty thousand houses: hence for a journey of ten or twelve days to Siampur, a large city, inhabited chiefly by Mohammedans, or, as they are there called, Tunganis. From hence in twenty days more it reaches another large city, Suju, the Sochu of M. Polo. Its farther course through China was not known by the informant, but he had always understood that it took a large sweep to the westward, and quitting China, fell into the Irtish. If the sources of the Irtish are really to be found in the country of Yarkand, that river

may rank with some of the longest in the world; but the accuracy of the account is very questionable. The retrograde course of such a river for such a vast distance seems, in itself, little probable; and although this might not be conclusive against respectable testimony, yet there are evident errors in the description, which tend to shake confidence in the whole: the relative position of Lanchu and Luju, for instance, is inverted, the former being the more easterly of the two. If the stream really reaches Lanchu, the probability is that it disembogues into the Hoang-ho *.

Eight days' journey from Yangi Kishlak, the last city of Khoten in the direction of south-south-east, is a district which abounds

* According to all the maps the Yarkand river, shortly after the junction of the river of Aksu, terminates in the small lake of Lop. Some Chinese geographers assert that it re-issues from the lake, and, crossing the smaller desert, or rather steppe, of Cobi, becomes the Hoang-ho, or Yellow River, of China. However this may be, it seems scarcely probable that the lake of Lop absorbs the waters of a trunk which must be so considerable as that of the river of Yarkand, after it has received the waters of the northern face of the Kuen-lun chain, of the southern face of the Thian Chan range, and of the eastern face of the Bolor-tagh, all mountains of great elevation, covered, more or less, with snow, and having no other vent for their waters.—Ed.

in gold, in grains and masses; in collecting which, five hundred to a thousand men are employed on the part of the Emperor of China. Khoten is supposed to possess this and other metals, but the knowledge of them is not divulged by the natives, lest they should be compelled to work them for the benefit of the Chinese government. At Aksu, it is said there is a mine of rubies which is not worked. A vein of silver was lately discovered near Ila, the chief station of the Chinese in this direction; but after the Amban had extracted from it a quantity for his own use, he ordered it to be closed. Intelligence of this being received at Pekin, the Amban was put to death, in the manner said to be commonly practised by the court; he was poisoned, by order of the Emperor, with a cup of medicated tea*.

* Mr. Moorcroft states the prevalence of a belief, which, though probably ill founded, shows the opinion entertained by the Turanis of their rulers. They assert that the Chinese government is in the habit of removing by means of poison, administered usually in a cup of tea, not only their own officers, but the chiefs of the Kalmaks, and thus preventing them becoming too powerful. It is said, that when the son of a chief attains the age of from ten to fifteen, the father is invited to Pekin, and after being treated with every mark of distinction, is sent back to his tribe. On the

A considerable portion of the population of Khoten consisted formerly of Kalmak Tatars, but it is said that when the Chinese subjugated the province, they deported the Kalmaks to the cities which collectively constitute the modern city of Ila, on the river of the same name, and to the adjacent districts. Their numbers, within a circuit of six miles from Ila in every direction, are computed at two hundred thousand families. Their chief employment is the breeding of cattle, camels, horses, cows, sheep, and goats; and for every hundred head they raise they pay a tax of one to the Chinese government. They bring annually from ten to twenty thousand three-year-old geldings to Ila for sale. These are ordinarily from thirteen and a half to fourteen hands high, and are sold in droves at about twelve for a yambo, or about fifteen rupees per horse. These horses are taken to Aksu, Yarkand, Kashgar, In-

route some Chinese functionary, in the course of the usual interchange of civilities, in which tea forms a prominent part, takes an opportunity of giving him a medicated draught: his son, whose youth and inexperience render him harmless, is raised to his father's dignity, to be removed by a similar method in his turn, before he becomes dangerous.

dejan, Khoten, and even to Bokhara, and are sold principally for carrying loads of merchandise. The Kalmaks are also employed as cavalry in the armies of China, and form part of the large garrison or standing army at Ila.

CHAPTER V.

Proceedings at Lé—Account of Aga Mehdi, the Russian Envoy—Excursions—Visit to Nobra—Sabu—Digar—Pass—Shayuk River—Churasa—Lokjun—Tazar—Rustic Hospitality—Hot Springs—Return by Undar—Tinder—Combing of shawl-wool Goats—Imitated by Wild Animals—Arrival at Lè—Mr. Trebeck fired at—Excursion to Knarung—Pithul—Sinh-kha-bab crossed—Pass of Kandu Lá—Marka River—Temple—Medicinal Spring of Knarung—Return—Confluence of the Sinh-kha-bab and Zanskar Rivers.

Soon after we were domesticated at Lé, and our intercourse with the Khalun had become more unreserved, the minister communicated to me a letter from the Emperor of Russia to the ruler of Ladakh, which had been brought to the latter by a person named Aga Mehdi, about six years before, professedly charged with the duty of opening a commercial intercourse with Ladakh: he had been the bearer of a similar letter to Ranjit Sinh, as he was instructed to extend his ne-

gotiations to the Panjab. This person, I learnt, was now on his return to these countries, and was shortly expected to arrive at Lé.

Although I had reason to expect a shrewd and able competitor in Aga Mehdi, yet I was anxious to see him, from the interest which was naturally excited by the rencontre of two European agents, from such opposite directions, in the mountains of Tibet, and from the hope that I might be able better to ascertain his real designs, as well as those of the ambitious power under whose patronage and authority he was employed, and whose views, which were no doubt political as much as commercial, he was to promote; our meeting, however, was prevented by his death, which occurred in the mountains of Karakoram, of a sudden and violent disorder.

In the middle of April, a person who represented himself as the partner of Aga Mehdi, Mohammed Zahur, arrived at Lé with a small kafilah, laden, as was pretended, with the effects of his principal, but which there was good reason to believe was public property. The chief articles imported proved

to be dyeing drugs, as cochineal, indigo, woad, &c., both crude and prepared, intended to be employed in Kashmir in dyeing shawl goods, according to specimens of colour on flannel, furnished by a British artist at St. Petersburgh. There were no labels nor instructions; Aga Mehdi, it appeared, had spent a twelvemonth with an English dyer in Russia, in order to learn the use of these materials; but as Mohammed Zahur was ignorant of their nature and application, he was obliged to have recourse to me for advice. I was thus enabled to learn many interesting particulars relating to the Aga and his mission.

Aga Mehdi was the son of a Jew originally from Persia, who had settled in Kashmir, and a Kishtwar bondwoman. Left an orphan at an early age, he was for a time supported by his father's friends, and when old enough to shift for himself, he was first a menial servant, and then a sort of pedlar: he then traded on a larger scale as a shawl merchant, and in that character established himself in Russia. Brought up as a Shia Mohammedan, he became a convert to Christianity

according to the ritual of the Greek church; and this circumstance, combined with his mercantile reputation, attracted the notice and patronage of some of the magnates of St. Petersburgh, by whom he was introduced to the sovereign. His knowledge of the people and language of Turkistan, Kashmir, and the Panjab, as well as his intelligence and enterprise, recommended him as a fit agent to be employed to extend the influence of Russia to the confines of British India, as well as to acquire information regarding the geographical and political circumstances of the intervening countries. His first attempt seems to have given satisfaction, as he was honoured, I was informed, with a gold chain and medal from the Emperor, and was soon encouraged to repeat his visit. On this, as on the former occasion, he brought letters from the Emperor of Russia to the rulers of Ladakh and the Panjab. Most of his papers were lost or destroyed upon his death, but a copy of the letter to Ranjit Sinh was brought to me. The original had been opened at Yarkand by Aga Mehdi himself, for the purpose of having a Persian translation made,

and both the original and translation had been seen by many persons. I felt no scruple, therefore, about possessing myself of the document. The letter is signed by Count Nesselrode, and written by order of the Emperor Alexander. The bearer is styled Aga Mehdi Rafael, merchant and aulic councillor, and is recommended to Ranjit Sinh as a respectable trader, for whom free access to the Sikh territories for commercial purposes is solicited, assurance being given that equal facilities will be afforded to merchants from the Panjab. The motives of the Emperor, it is added, in opening this friendly correspondence with the Raja, are his exceeding benevolence towards the innumerable nations over whom he rules, and the deep interest he takes in the people of remote countries, and especially in the subjects of Ranjit Sinh. The letter to the Raja of Ladakh, which was subsequently communicated to me by the Khalun, differed from this only in the address.

Besides the drugs, Mohammed Zahur had with him a quantity of rubies and emeralds, the latter of which, although not perfect, were

of considerable size and value. I understood from a Turani merchant that the Aga on his former visit had brought emeralds with him, for which there was no demand; and his repeating this investment was therefore apparently ill-advised. The size and setting of some of them also made them much too costly for the markets of Tibet and Lahore, and it seemed probable that they were designed for presents rather than for sale. There were other articles of a similar character, and some Russian telescopes, English cutlery, phosphorus boxes, and other trifles, were not likely to be employed as merchandise. Aga Mehdi had also a considerable sum, I was informed, in gold ducats, sixteen hundred of which were paid at Lé to a merchant of Yarkand, in acquittal of an ancient claim upon the Aga. Mohammed Zuhur had also in his possession above eleven thousand rupees*.

* Baron Meyendorf in his *Voyage d'Orenbourg à Boukhara* inserts a Persian paper on the commercial road from Semi-Palatynsk to Kashmir, with a translation and notes by Professor Senkowsly. In the latter (p. 340) reference is repeatedly made to a memoir by Mehdi Raphail, Juif Natif de Kaboul, who died a year before in Tibet, and who is the same, therefore, with Mr. Moor-

The inferences to be drawn from the means with which Aga Mehdi was thus provided were confirmed by the tenor of the information procured by Mir Izzet Ullah at Yarkand. It was there asserted, that the Aga had assured the Mohammedans of Kashgar of support from Russia, in any attempt to shake off the yoke of the Chinese, and had even invited the heir of the principality to St. Petersburgh, with a promise that he should be sent back with an army to recover the dominions of his ancestors. It was also generally reported that Aga Mehdi was to endeavour to prevail upon the Raja of Ladakh and Ranjit Sinh to send envoys to the Russian capital, the expense of whose journey he was authorized to defray. How far these assertions were well founded it is difficult to say; but their circulation indicated an ex-

croft's Aga Mehdi. His account of political events in Afghanistan shows him to have been a man of more observation than Asiatic traders usually are. This is not the only authority for details of this route possessed by the Russians, for the Baron cites (p. 122), *La Relation d'un Voyage aux Indes*, by Raphael Daniberg, a Georgian gentleman; printed at St. Petersburgh in 1815. He travelled from Kashmir to Semi-Palatynsk by way of Kashgar.—Ed.

tending disposition amongst the Mohammedans of Turkistan to anticipate the effectual interposition of Russia in their political as well as commercial condition. In respect to the latter, a kind of commercial treaty had not long since been entered into between that power and the ruler of Kokan, by which it had been agreed that the latter should give a safe convoy to the Russian-Chinese caravan through his dominions, from the Russian frontier to Kashgar, on receiving a rate of duty equal to that levied by Russia from the caravans from China and Turkistan.

From Shamei on the Irtish, Aga Mehdi had been escorted to Turfan Yangi, on the border of Chinese Turkistan, by a troop of cavalry, and had, nevertheless, been more than once in some danger from the attacks of the Kirghiz, provoked, it was probable, by depredations committed by his followers on the flocks and horses of the steppe. At Turfan he dismissed his escort, dividing amongst them, it was said, a number of horses carried off on their progress through the deserts, retaining only sufficient for the prosecution of his journey. At Yarkand he deserted his

newly-adopted creed, and became a Musselman of the Suni persuasion.

After a short delay at Lé, Mohammed Zahur disposed of all the articles in his possession, and sending two confidential servants to Kashmir to lay out the money in shawls, repaired himself to Bokhara, there to wait for his people and goods. Whether it was his purpose to return to Russia, where his father was settled as a dealer in shawls, was somewhat doubtful. Under an impression that the articles in his possession were public property, I endeavoured strenuously to dissuade him from the sale of them, and strongly recommended to him to proceed to the court of Ranjit Sinh with the Emperor's letter: my counsels were, however, disregarded, for reasons best known to himself, but which it was not difficult to conjecture.

The death of Aga Mehdi was productive of some inconvenience to my movements. In reply to a letter from Mir Izzet Ullah, Kissak Shah, the principal judge at Yarkand, whilst he gave him a personal invitation, referred to the Russian envoy for a communication regarding my visit to that place. His

death, and the absence of any written information, rendered me uncertain what measures to adopt, until a Turani merchant offered to act as my agent, and negotiate my passage by way of Yarkand. In the mean time some persons arrived at Lé from Yarkand, who, I was informed, were sent by the Kashmiri merchants of that place to ascertain the character and objects of our party. With these persons I had several interviews, and they departed in March, professedly convinced of my mercantile pursuits, and favourably disposed towards them. They intimated, however, the probability of the governor of Yarkand making application to Pekin for orders, in which case an answer could not be received for several months. The caravan then departed, but the roads were blocked up by the snow, and it was obliged to return. A week afterwards it again set out, and effected its passage, but with the loss of its chief. Mullah Nyas, the Kafila bashi, had fallen about twenty yards behind the rest of the party: just as they entered the gorge of the pass of Sha-skingomo, a sudden gust of wind brought on such

a cloud of snow, as to conceal the Mullah and a little girl riding on a couple of yaks, from the mountaineer who attended them as their guide. The latter threw himself on the ground, that he might not be blown off his feet, and upon getting up when the blast had ceased, saw the yaks without their riders: they had been blown off their seats apparently, and were buried beneath the snow. After some delay the bodies were found: the girl recovered, but the old man was dead: he was a man of property and character. His companions deemed it expedient to carry the corpse with them to Yarkand, nearly forty days' journey at this season, in order to satisfy the Chinese authorities of his fate.

Pending the result of this reference, and of my despatches to Kokand, Kashmir, and Khulm, I took advantage of the interval to visit different parts of the country, the jealousy of the court having been overcome, and permission granted me to travel wherever I pleased. The first opportunity of this kind was obtained through the intervention of the Rani. Having good reason to believe that

the execution of the commercial engagement with Ladakh had been accelerated by her good offices, I sent her a small present, and, after a few days, received a message from her through the Khaga Tan-zin, to know if there was anything in which she could promote my views. I availed myself of the opportunity to state my desire of visiting the hot springs at Nobra, for the benefit of my health, which had suffered from close confinement to the house during the winter. Leave was accordingly granted, and at the same time it was intimated to me that I might have an audience of the young Raja, a measure which had hitherto been delayed on various pretexts. We had been introduced to the Raja, his father, in the month of December, the ceremony on which occasion differed in no essential respect from that which had been observed when we visited the Khalun. In the present instance the audience took place in the garden of the palace, in a tent enclosed by a long wall of canvass on either side, forming an avenue, at the upper end of which, under the tent, which was open in front, sat the young Raja.

He was seated on a bench covered with cushions, with a covered table before him. In front of him sat two boys, his foster-brothers, and below them on either hand stood the Khalun and the Raja of Giah. The courtiers were seated on felts, which extended nearly the whole length of the enclosure. The young Raja was about ten or eleven years of age. He was so wrapped up in shawls that his person was quite concealed: he had a white turban on his head, with a small jewel in front. On our approach he seemed alarmed; but his fear subsided, and he laughed and talked to those near him. Through a side door I noticed some women anxiously watching the proceedings, amongst whom, as I afterwards learned, was the Rani.

The shorter road to Nobra was still closed by the snow, but the more circuitous one had the advantage of being the Yarkand road also, and would afford me, therefore, an opportunity of familiarising myself with the route which it was our purpose, if not disappointed, ultimately to follow. The first village was Sabu, to which we proceeded

from Lé on the 28th of May, along the southern foot of the ridge of mountains forming the northern boundary of the valley of Lé, until we turned its angle, and proceeded towards the east, up a narrow valley, bounded by a transverse mountain elevation. Passing over this we descended into another small valley, in which the village was situated. The distance is about four miles from Lé, and Sabu lies about east from that place. The lands of Sabu, like those of Lé, slope to the river, but are separated from it by a long reach of barren soil, strewn with fragments of stone. On the other sides the valley is shut in by mountains, which at the north-east corner meet in an acute angle. It contains several small hamlets besides the principal one, in which latter the Raja has a dwelling. The lands were laid out, as usual, in terraces, and appeared to be of better quality, and more neatly and industriously tilled than those of Lé. The crops covered the ground, and were about two inches high. The trees and vegetation were of the same character as in the vicinity of the capital, but looked more flourishing.

From Sabu the road proceeded along the foot of the hills to the east, to the entrance of a narrow pass leading due north, and terminating in an ascent, on the face of which we halted, after a journey of about six miles. The only accommodation it afforded was a rude chamber, constructed of loose stones. We met a party of men from Balti, laden with stone cooking pots and rolls of wool. They were stout able-bodied men, with very wrinkled countenances from exposure to the cold. They had been fourteen days on the road. At night snow fell, and was four inches thick in the morning. As a pass which we had to traverse was blocked up by snow, I sent my servants back to Sabu, and remained in my tent with one man, very indifferently supplied with food, and without any fuel. Snow continued to fall until the 2nd of June, but it did not much accumulate, as that which fell in the night was mostly melted during the day. On the night of the 2nd there was no snow, but it froze hard. The pass, however, was open, but I was detained in expectation of a message from Lé. During the 3rd the daughter-in-law of

Khaga Tan-zin came down the pass, on her road to Lé. She was about twenty, a tall well-looking brunette, with an oval face, red cheeks, and fine teeth. Her head was covered with a rich brocade cap, and her neck loaded with gold and silver ornaments, turquoises, and coral beads. She rode a yak, and had a fine ruddy boy, about three years old, on her lap. She was accompanied by her brother, and about fifty attendants, with as many yaks, and the appearance of the whole party denoted considerable affluence.

On the morning of the 4th of June the thermometer in the tent was at 27°, but as the yak people were willing to move we resumed our journey. The direction was east of north, and then east, and the path was formed of snow trodden down by the feet of passengers, and uneven with alternate thawing and freezing, rendering it very rugged for men, and dangerous for horses. Being on a steep ascent, it was also very fatiguing, and the difficulty of breathing was more troublesome and painful than I had before experienced: this extended to the animals, particularly the horses; but the yaks were

not wholly exempt, and we were obliged to halt repeatedly to give the cattle relief. I had no means of estimating the elevation of the summit of the pass, but imagine it cannot have been less than one thousand two hundred feet above the beginning of the ascent. From the top of the pass the country to the north and east appeared equally mountainous with that which we had passed, and which was shut in to the south and west by snow-topped ridges at no great distance. The descent to the west of north was less abrupt and laborious; but as the sun became powerful the snow softened, and the cattle, if they diverged from the path, sometimes plunged up to their shoulders in a snow bed: even on the track they were occasionally knee deep in snow. The effect of snow and sunshine together is in these countries distressing, and often injurious to the eyes, and the inhabitants either wear a kind of goggles made at Lé, or twist a loose braid of yak's hair round their head, so as to form a kind of veil to the upper part of the face. After some distance, generally descending, we came to the village of Digar, in a valley not

above a quarter of a mile in breadth, stretching north-east. The place contains about sixteen houses. It lies very high and lofty, and considerably above Lé. The only grains cultivated are barley and buckwheat. The people, who are very poor, subsist partly by keeping yaks for the hire of travellers.

The mountains, at the base of which Digar is situated, were rugged, and bare of vegetation, and consisted chiefly of a clay slate bearing vegetable impressions. From a break in the summit of the ridge above the village, over which the path ascended, a broad sandy valley, running north by east, was seen, down which flowed the Shayuk river. At the closed extremity of the Digar valley it was joined at a right angle by the Duryukh, a river which rises in the mountains south-east of the village of Digar, and then continued its course in the same straight direction. The valley of the Shayuk was shut in by snow-topped mountains of a similar elevation with those around them, or one thousand, or one thousand two hundred feet above the river. The bed of the river was at least half a mile broad, but the stream

occupied a small portion only of this extent. I was told by some inhabitants of Agham, a village I passed on my right, that the quantity of water brought down by the Shayuk was much greater than of late years, and that rain had formerly fallen with more frequency and abundance. After skirting the left bank of the river for some miles we crossed it by a sanga of willow planks, to the estate or farm of Roundo. This, occupied by one family, comprised a wood of tamarisk, willow, and poplar trees, and about forty acres of land, cultivated in terraces. It was bounded to the north by mountains, from a gap in which on the north-east a beautiful trout stream fell into the Shayuk, just above the bridge. The trout were larger and rounder than any I had ever seen. The fields were green with barley, and the verdure, contrasting with the white stone faces of the terraces, the streams of clear water that surrounded them, the belts of apricot trees, interspersed with bushes of the dog rose, now in full bloom, with willows, and here and there a walnut tree, the banks of the watercourses, fringed with the dwarf iris

and large tufts of lucerne, the neatness of the houses, and the cordial welcome of the inhabitants, made Roundo more agreeable to me than any place I had seen since I left Joshimath.

On the following morning we proceeded along the valley, in a north-westerly direction. About five miles on our left was a gap in the mountains, near which the village of Yon-chu was situated, from whence a road proceeds to Lé, by Kondon, which is taken when that by Digar is obstructed by snow, or by the rise of the Shayuk. About three o'clock we arrived at a jangal, which is called the head of Nobra, and were received at a house, at Tirit, belonging to a son of the Khaga Tan-zin. On the next day we quitted the bed of the Shayuk, and turned up a valley a little to the west of north, watered by the Charasa, a river from the Karakoram range, which flows round the Lha Skarmo mountain, and falls, at nearly a right angle, into the Shayuk, about seven miles west from Lok-jun. At the latter village we stopped at the house of an old lady, named Amma Bunzun, who had consulted me at Lé

for a liver complaint, and to whom my advice had been of advantage. Her gratitude was extreme, and she insisted on our dining with her. The houses here were more spacious and better kept than at Lé. A column of red stone stood near each, to avert, it was said, the effects of the "evil eye." The grounds of Lok-jun were surrounded by a plain of white sand, in many places blown into ridges. In the evening we reached the town of Tagar, the residence of the Khaga Tan-zin's youngest son.

On the next morning the old lady followed me with several pounds of butter, and two servants loaded with wheat cakes. My medical fame soon attracted a numerous attendance of sick, who here, as at Lé, and other places, paid me fees in kind, flour, bread, butter, tea, vegetables, and the like, so that had any stranger, unacquainted with the circumstance, seen me thus surrounded by my patients and their presents, he would have thought me a retail dealer of farm produce in the midst of customers. After leaving Tagar and skirting its grounds for a mile in a direction north by west, we descended into a

level plain, the soil of which was moist in some parts, where it was overspread with short grass, and drier in others, where it was covered with soda. On the left hand of the valley, at the foot of the mountain, was the village of Charasa, looking like a fortress. On the right of the road lay another village, Cham-shed, and we passed, about two miles farther on, between two other villages, beyond which we came to the Charasa river, and crossed where it was about thirty-five feet broad and waist deep. At the village of Teresha, on our right, my guide was persuaded to stop and partake of the hospitality of his friends, in which I was invited to share. I was ushered into the best room in the house, and a felt carpet was placed on a bench for my seat. The host, a jolly-looking farmer, congratulated us on our arrival, and the hostess, a comely woman, with one child in her arms, and three clinging to her skirts, introduced a vessel made out of the hollowed stem of the willow, and furnished with a handle and a spout, and filled with chang. Several neighbours came in, and seated themselves round the room, each man with

his wooden cup, in which chang or tea was incessantly supplied. I observed it was a point of hospitality never to suffer a cup to be emptied. As soon as the host or hostess saw one half empty it was replenished until the guest positively declined any more: satu and cakes were also distributed, and butter was placed before me and the guide. Five pots of chang were quickly despatched, and the purple nose of my guide took a deeper hue. None of the party were intoxicated, nor did this befall my conductor, although on leaving this mansion he stopped at a second to allay his thirst. In about an hour's walk from the second visit we arrived at Chusan, and stopped at a house belonging to the Khaga Tan-zin, where we were hospitably entertained, having come about twelve miles from Tagar.

In the vicinity of this house were situated the hot springs, which, in the evening, I visited. They issued from the face of part of the mountain ridge which we had seen on our right all the way from Tagar. The openings were small, and the water flowed gently and equably: it was quite clear, and

of the same temperature, of 167°, at mouths distant two hundred yards from each other: each vent was surrounded by a bed of tufa, lined with a yellow crust. A leathery conferva grew in the currents where not above 110°, the upper leaves of which were covered with a yellow deposit: the water was wholly without taste or smell. Close to the hot springs issued small streams of cold water, the course of which was free from any earthy or stalactitic matter. Some rudely-constructed baths, consisting merely of a loose pile of stones round the edge of a natural cavity, had been made for the use of persons who resorted to them, chiefly for rheumatic affections. The edges of most of the streams were fringed with grass or moss, which, where subjected to the action of the water, was covered with a stony crust, and in every case, at about half a yard distance, was a bed of soda, following the course of the current. This is called, by the Tibetans, Phúl, and is used by them as soap, and mixed with tea. The soil about this spot abounds with soda. I tried a bath for rheumatic pains in my shoulder, which had distressed

me during the winter, but derived more harm than benefit from bathing in so exposed a situation, that, although I had secured my clothes by placing large stones upon them, they were quickly sent after me into the bath by a violent gust of wind from the mountains. The appearance of the soil and of the detached blocks indicates the action of heat, but there are no traces of volcanoes in any part of the country. The water is collected in a reservoir at the foot of the mountain, and thence led over lands which are said to yield excellent crops of barley and lucerne. The country abounds with hares and chakors, and the view of the villages on the edges of the valley, in the midst of cultivated lands, bordered by the sandy plain through which the Charasa was flowing, was picturesque and pleasing.

Sending my baggage to Undar, along the left bank of the Charasa, I retraced my steps to the hospitable mansion of Amma Bunzan at Lok-jun, and thence proceeded to Undar, which lies in a recess of the mountains, nearly west from the former. The road lay

through a forest of black thorn, and was constantly intersected by small streams, some flowing into the Shayuk, and others into the Charasa. The breadth of the Shayuk where we forded it, within forty yards of the junction, was not more than as many feet. The united river was called the Chu Dhumsa. Hares and hyænas abounded in the thorn forest, and the ibex and ovis ammon on the mountains.

At Undar, which is also called Shak-than Ring-mo (the Valley of Stones), was the residence of Dur-je Tan-zin, the eldest son of the Khaga Tan-zin. The place consisted of a village, and several estates detached. The soil, though stony, was productive, and the fruit trees were very flourishing: some of the apple trees were forty feet high. At this place I witnessed the preparation of a peculiar kind of tinder. A small shrub, not above an inch and a half high when in flower, was gathered, and placed on the bottom of a dry iron vessel over a fire: as the hairy heads expanded they were plucked off and thrown away. The plants were repeatedly turned over to prevent their being

burnt: when considered sufficiently dry the pan was inverted, and the leaves, placed on its blackened under-surface, were beaten upon it with a small stick until well impregnated with the soot, any loose dust being carefully blown off. In this state the slightest spark was sufficient to ignite the preparation. This substance, wrapped up in a thin roll of paper, is also used as moxa, or as actual cautery, pieces about three-fourths of an inch thick being laid upon the skin, and set fire to. This is a favourite application for pain in the stomach.

We returned on the 17th to Tirit. The bulk of the Charasa and Shayuk had much diminished since we passed them, owing, probably, to the greater cold which had prevailed, and the days being overcast. The next day brought us back to Roundo. On the 19th I started before the porters, and, following the course of a narrow valley to the left, I came to a town of some extent, which was also named Taghar. Here I found that I was on the wrong road, or that proceeding to Chan-than, and had, consequently, to retrace my steps. At the end of three miles

an ascent, by a narrow and steep path, brought me in sight of Digar. On my way I had an opportunity of witnessing the manner in which the shawl-wool was extracted from the fleece. After the hair of the goat had been cut short with a knife in the direction of its growth, or from the head towards the tail, a sort of comb was passed in the reversed direction, and brought away the finer wool almost unmixed with the coarse hair. The comb consisted of seven pegs of willow tied side by side, like Pan's pipes, and secured by cross bars: the pegs were cut away at the points to the thickness of quills, and were made slightly to diverge from each other. The operation was roughly performed, and brought away scales of the cuticle along with the wool. The wool, however, was, at this time, easily detached, for it is a curious provision of nature that, with the setting in of warmer weather, the delicate woolly clothing nearest the skin of the mountain animals, being no longer needed, becomes loosened in its attachment, and is removed, if not by man, by the animals themselves. I noticed the yaks

at the end of April very busy rubbing themselves with their horns, and bringing off the finer hairs in considerable quantities. In sheep and dogs the wool rose to the end of the hair, and either fell off, or was got rid of by the animals rolling on the ground, or rubbing themselves against trees, and the like; and I was told that the wild goats and sheep relieve themselves in the same manner of a vesture indispensable to their comfort in winter, but unnecessary and inconvenient in the heat of summer.

On the 20th we were able only to reach the northern foot of the pass, which we crossed on the 21st. There was much snow on the northern face, the surface of which was mostly frozen over, but the crust was in many places very thin, and gave way beneath the weight of the cattle; they were constantly sinking deep into the bed of uncongealed snow, and delayed our progress, so that we were five hours in reaching the top of the pass. The descent was still more difficult and dangerous. The snow had been mostly melted, but a frost, as recently as on the preceding night, had glazed the water of

such as had been thawed during the day; and the mixture of ice in sheets, or in powder, with fragments of rock and loose stones, rendered the footing insecure both for men and animals. An Arab horse of mine, having missed his footing, slid down a sheet of ice for some distance, and recovered himself only by a vigorous effort, just on the brink of a precipice several hundred feet high. We arrived at Lé on the same day. The Khalun and Khaga Tan-zin were absent, having gone with some troops to retaliate upon the territory of Balti an inroad committed by the Raja of that country upon Ladakh. The quarrel was not likely to lead to any serious results, for the people on both sides took little interest in the dispute, and their propensities were at no time of a very warlike description.

Notwithstanding the generally inoffensive character of the people, however, it appeared that some amongst them were capable of deeds of atrocity, for, about two o'clock on the morning of the 27th of June, Mr. Trebeck, who had sat up late preparing for an excursion on that day, was fired at from the

street. The shot passed through the window, and struck the side of the room, in the direction of a light upon a table at which my young friend had been writing. He had, fortunately, quitted his chair a few minutes before, or he might have been killed. As our inquiries furnished no clue to the perpetrator of this attempt, and as it had luckily failed, we thought it unnecessary to suspend our purposed journey, and set off, accordingly, to Pittuk.

Pittuk is a village situated on the northern face of a hill on the right bank of the Sinh-kha-bad, south-west from Lé about four miles, and on a much lower elevation. The houses rise one above another to the top of the hill, which is of no great height. From the sheltered situation of the lands of Pittuk, which follow the course of the river, and have a slight fall towards it, as well as from the goodness of its soil, the crops come to maturity sooner than about Lé, as has been noticed.

Crossing the river, we proceeded along its left bank until we were opposite to the village of Phi, beyond and above which, on the

top of an easy slope, was that of Phiang, about two miles in a horizontal line: the hills close to it are said to be frequented by the wild sheep and goat. At some distance beyond this we turned off to the south, leaving the river to the right, and after passing the night at a farm, ascended the pass of Kandu La, which we estimated by barometrical measurement at 16,600 feet high. The mountains near at hand were not much more elevated than the ghat, except one at some distance to the west, the peak of which was lost in clouds. A deep bed of snow lay on the left of the pass, and all the high ridges in sight were topped with snow. Some lower, intervening, and rounded mountains were bare, except that on their sides were patches of wormwood and furze, and occasionally a plant of rhubarb. On the top of the pass was the usual votive pile of stones, decorated with rags and bits of cloth. The descent led to a single farm-house and estate called Shingo, and was accompanied by a rivulet, which, passing the house, flowed into another small stream, called, from the villages situated upon it, the Marka

or Skio rivulet: the latter stood at the junction, the former three miles higher up the stream to the east, on its right bank. The Marka flows from the mountains of Zanskar, and the road to that district lies along its course. Skio is situated on the northern bank of the Marka; but opposite to its confluence with the Shingo were the ruins of a number of houses, some of considerable size, and extending up the slope of a mountain. The buildings, it was said, had been overwhelmed by a fall of stones from the top of the mountain. There was an ascent to the summit, on which stood a sacred cairn, by a rude and fearful series of steps, formed of slates resting on wooden pegs driven into the face of the rock.

At the angle of the rocks, upon the right hand of the Shingo, where the ridge terminated, was a small temple, in which was a statue of the god Chamba. The image was erect, about twelve feet high, and naked, except round the waist, which was encircled by a narrow band of drapery. The walls were painted with figures of men, women, and animals, singly or grouped, and appa-

rently in processions. The temple had been recently repaired, but the paintings were said to be very ancient.

From Skio the road continues due east for a mile, and then turns north for about the same distance up a narrow rivulet to the spring of Knarung, to which our visit was designed. We found the water trickling from the mountain into a natural reservoir, from which it is drunk. It was scarcely tepid, and of a mawkish taste, but without any decided flavour: along its sides were incrustations of soda. It is taken as an emetic, and is of considerable repute amongst the natives; but neither Mr. Trebeck nor myself discovered any medicinal property. The branches of a tamarisk near the spring were hung with scraps of cloth, some plain, some printed, as offerings to the divinity of the place.

In the course of the next two days we retraced our path to the main river, and, crossing it, proceeded to Phi, from whence we set off in a westerly direction to the confluence of the Lé and Zanskar rivers. Passing over barren plains for some distance, the road

then followed a gentle ascent, from the summit of which it descended to Nimo, on the left bank of the trunk of the united rivers. The river of Lé, flowing from east by south, was a clear and placid stream: that of Zanskar, from west by south, came rushing with great rapidity, and dashed its turbid waters into the Sinh-kha-bad with so much vehemence as to cause a reflux current for several yards. The height at which the union of the two rivers takes place is nearly twelve thousand feet. The road to Kashmir takes this direction, and the village of Bazgo, which is the second stage from Lé, was visible at the distance of about four miles. From hence we returned to Lé, and arrived there in the forenoon of the 4th of July.

CHAPTER VI.

Political Relations of Ladakh with Ranjit Sinh—Tender of Allegiance to the British Government of India—Communicated through Mr. Moorcroft—Displeasure of the Government—Mir Izzet Ullah dispatched to Yarkand—Journey to Kag-jung—Chushut—Marsilla—Sakti—Lamas at Chumri—Hospitality of the Banka—Hares not eaten—Mode of preserving Plants—Chakors—Pass of Chang La—People and Baggage benighted on the descent—Intense cold, and want of Fuel and Provisions—Lake of Las Marma—Gigantic Chakor—Durgukh Village and River—Muglib—Tswar Lake—Extensive Lake of Pang-kung—Chushul—Haunts of the Kiang, or Wild Horse—Messenger from Rodokh—Letters from Lé—Mr. Moorcroft's Return—Journey continued by Mr. Trebeck.

BEFORE I set out on my journey to the hot springs of Nobra some conversation had occurred with the Khalun and Khaga Tan-zin, on the political relations of Ladakh with the ruler of the Panjab. It appeared that in the reign of Aurangzeb the country of Ladakh was invaded by the Kalmaks, and the go-

vernment, unable to repel them, applied for aid to the Mogul governor of Kashmir. The assistance was granted on condition of Ladakh becoming tributary to the Mogul empire, and from this period, down to the reign of Mohammed Shah, Ladakh had paid, through Kashmir, a small annual tribute to the court of Delhi. On the invasion of Hindustan by Ahmed Shah Abdali the tribute was transferred to the Durani government of Kabul, and had been paid to their officers in Kashmir, until that province was invaded and subdued by the Sikhs. Ranjit Sinh having become possessed of Kashmir, had recently intimated some purpose of instituting the claim on Ladakh, and demanding the continuance of the tribute from his weaker neighbour. The Khalun, therefore, consulted Mir Izzet Ullah as to the policy that should be adopted on such an occurrence, and showed a disposition to tender a proffer of allegiance to the government of British India, as the legitimate representative of the dynasty of Timúr. The advice given to him was to follow this course at once, and not to await the demands of the Sikh, which would

certainly be made, and which it would be then too late to refuse.

The timid indecision of the Ladakh rulers delayed, however, the offer of allegiance to the British until a message had been received from Kashmir, inquiring why the tribute had not been paid as usual, and threatening a forcible levy if it was not speedily dispatched. On my return to Lé, therefore, I found the Khalun most anxious to apply for protection to the British government, as to the paramount sovereign of Ladakh, and on his appeal to me I readily consented to be the medium of forwarding the tender of allegiance to Bengal, addressing a letter to the Sikh chief, at the same time, to apprise him of what had occurred. My motives, I conceived, fully justified my interposition. On the one hand I averted from an amiable and harmless people the oppressive weight of Sikh exaction and insolence, and, on the other, I secured for my country an influence over a state, which, lying on the British frontier, offered a central mart for the extension of her commerce to Turkistan and China, and a strong out-

work against an enemy from the north, should such a foe ever occur in the autocrat of the Russias. That Russia was not insensible to the importance, commercial and political, of Ladakh, was evinced by the recent repeated efforts made to get a footing in the country, and I held it to be an act of provident self-defence to anticipate her ambitious designs. In every light, therefore, whether of humanity, of commercial benefit, or of political security, I conceived the allegiance of Ladakh, voluntarily proffered, and imposing no obligation from which the slightest inconvenience could result, could not fail to be acceptable to my government, and I forwarded the memorial and tender to Calcutta. From motives which I am unable to appreciate, and unwilling to scrutinise, my conduct was wholly disapproved of, and I was severely censured for taking unauthorisedly a part in political arrangements. The allegiance of Ladakh was declined, and, as Ranjit Sinh was informed I had acted without the sanction of the government, that state was placed at his mercy. To have been visited with censure where I must still

think I merited commendation was a sufficient disappointment; but the consequences were still worse, and the difficulties and dangers which subsequently beset my progress were mainly owing to the harsh, peremptory, and public manner in which discredit was affixed to my proceedings by the Resident of Delhi and the government of Bengal.

Immediately after the adjustment of this affair I dispatched Mir Izzet Ullah to Yarkand to further the negotiations going on there for permission for us to proceed, and, pending the result, continued my investigations in the neighbourhood. Understanding that the Kiang, or wild horse, chiefly abounded in the eastern districts, I proceeded thither with the hope of procuring either a living or dead specimen of this animal. As the direction of this journey was towards Chan-than the Khalun was, at first, apprehensive of its compromising him with the authorities of that province, and some delay occurred before his permission was obtained. On the removal of this difficulty by my assurances that I would not cross the frontier, a further detention ensued by the

setting in of frost and snow early in October, and it was not until the 21st of that month that we were able to start. We then crossed the river to the opposite suburb of Chushut, the scattered houses and grounds of which extend for some distance along the left bank. We encamped at the house of Mohsin Ali, a Kashmiri merchant, whom I had appointed the British factor at Lé. We were advised to be on our guard against hyænas, who sometimes descend from the mountains at night, and to whom our baggage asses would be an acceptable prey. We were not disturbed, however, by these visitants, and, resuming our route the next day, passed through the contiguous lands of Stakna, watered by a canal cut from the river, and arrived at our former halting-place, Marsilla. Our old friend, the Lama, was absent, having been obliged to meet the Raja at a village in his jurisdiction: he had taken care, however, to order a quantity of rice and a fat sheep to be dressed for our dinner.

We were detained two days at Marsilla for supplies, but on the 25th crossed the river by a sanga, where it is divided by an island into

two channels, and proceeded up a narrow valley, leading to the village of Sakti. The sides of the valley, which was not above half a mile broad, and which was watered by a rivulet flowing into the Lé river, were disposed in terraces for cultivation. The crops were gathered, and the people were employed in treading out and winnowing the corn, enlivening their labours by a song more monotonous than musical. On the north-west side of the valley we passed the town of Chumri, containing about two hundred houses and a temple, said to be richly endowed: above five hundred Lamas reside here. The Raja was at this time on a visit to their principal. We moved on to a house belonging to the Banka, called Piu, where, although he was absent, a dinner had been provided for us by his orders. On the preceding day I had sent to him a present of game for the Raja, and it was fortunate I did so, for it is the etiquette in Ladakh to send such articles to the Raja in a dressed state only. The Banka took the game, and said he would have it cooked. The present did not include some hares which I had shot, as

they are not eaten by the Tibetans, for no other reason, as far as I could learn, than that the length of their ears assimilated them to asses.

The Banka, who to his office of master of the horse adds the government of this district, prevailed upon us to remain in the vicinity of his dwelling until it could be ascertained that the pass of Chang-la was free from snow, and, although I thought we might determine this for ourselves, yet, as he was earnest in his expressions, and was, apparently, prompted by friendly motives, I was prevailed upon to delay our further advance until the 30th. During this interval I observed the gardener, who was here, as elsewhere in Tibet, a female, preserving some rose bushes and other plants of a less hardy description by pressing them on the ground, and covering them a foot thick with chaff, a precaution which she assured me would keep them alive through the winter. The district under the Banka comprises seventy villages. His office is hereditary, and is held by the condition of bringing seven hundred armed men into the field when required. On the

top of his house was a large chapel, in which were a number of small images on shelves, and a large cylindrical drum upon a stand. In this neighbourhood the chakors are numerous, and are frequently taken alive, being at an early hour in the morning so stiffened with cold that they are unable to escape from the men and boys who have watched the place where they have roosted. A brace of them was sent me by the Banka, tied by the legs, and wholly uninjured. It was not easy to bring them down with a gun, although we saw several coveys; but they kept up on the highest parts of the rock, where we could not follow them. In the course of our chase we caught a glimpse of a small animal called wat-se. It was rather smaller, though like in shape to a fox, and of a light orange colour.

Moving on the 30th, we soon came to the straggling houses which constituted the village of Sakti. On the face of the mountain, forming part of the eastern limit of the valley, stood the fort of Sakti, a pile of buildings, surrounded by a wall and towers, the whole built of granite blocks cemented with

clay: the houses were unroofed, but the walls were mostly standing. This fortress was evidently intended to command the northern entrance of the valley, but it was taken and dismantled by the Kalmaks nearly two centuries ago, and has never been repaired. Beyond this a road up an apparently easy ascent, going to the north, led to Nobra. Our route turned up a valley to the east, in which was situated the village of Tongur, on the left. Above the village stood a large temple, with two plates of brass suspended from the pediment in front. Beyond this the valley narrows and ascends, and at about a mile above the village cultivation terminates. The ground is then broken, and strewed with fragments of rocks, leaving only a channel for a mountain torrent, which runs into the Sakti rivulet. We here met two flocks of sheep and goats laden with wool.

Having rested on a sheltered platform during the night, we commenced the ascent of the Chang-la pass early on the 31st. A line of snow commenced about a mile and a half above our encampment, and our sheep charged with our baggage trod it, as they

preceded us, into a path sufficiently firm to bear the yaks and horses. On the top of the pass, which was a level three hundred yards broad, stood the usual accumulation of stones and rags, to which the Banka had entreated I would contribute, as the omission, in the belief of the people, would offend the genii of the mountain, and would be punished by some awful catastrophe. I accordingly propitiated the spirits of the pass with the leg of a pair of worn-out nankin trousers, and gratified my people by ordering a sheep to be killed for their entertainment when we had reached the foot of the ghat. By the barometer the Chang-la pass was the highest we had crossed: it stood at 15° 52′, the thermometer being at 25°, and, consequently, it could not be much less than seventeen thousand eight hundred feet high. As far as could be estimated by the eye, the line of elevation of the loftiest ridges rarely exceeded this, with the exception of the mountain descried from the pass of Kandu-la.

The sun having softened the snow on the slope of the descent, rendered our path very laborious: the horses were sometimes neck

deep, and we were occasionally obliged to wade through it up to our waists. It was not until the approach of evening that the persons of our party in advance reached a valley at the foot of the pass, running north-west and south-east, the upper part of which was free from snow, and presented some patches of vegetation. It was nearly night before my people arrived, and then they came without the asses, who had our tent and bedding, and three men had dropped behind. It appeared that after passing the pile the animals had proved unable to make their way with their burthens. The men who last arrived assisted to unload them, and then recommended their companions, two washermen and the cook, to abandon them and the baggage, and save their own lives. Half benumbed with cold, and bewildered with affright, the three individuals in question gave themselves up as lost, and, throwing themselves on the snow, declared they would rather die than proceed. Deeply concerned as I necessarily was at their probable fate, it was now impossible to devise a remedy. It was night, the cold was intense,

and to have sent back aid would have involved the almost certain loss of other lives. The men who were missing had with them the sheep-skin cloaks of the whole party, Mr. Trebeck's bedding, and two tents:—if they had their senses about them, they had the means, therefore, of guarding against the cold better, indeed, than we ourselves. We had one tent and some fuel, but the latter was barely sufficient to heat some water, and we were ill provided with warm clothing. The sheep with our provisions had gone on, and there was no chance of finding them in the dark, so that a little barley porridge was the only sustenance that could be provided for our followers. My companion and myself remained without food. Mr. Trebeck doubled himself up in a felt carpet, and I endeavoured to sleep in my clothes and bedding on the ground: cold and anxiety, however, permitted neither of us to repose. The condition of the servants was less unenviable, and with such clothing as they could collect they crept into holes and hollows, screened from the wind by overhanging rocks or blocks, and rude walls of stone.

Some of them said that the shelter thus obtained, as contrasted with the open air, was like a hamam, or warm bath. The syces, or grooms, stripped the horses, and covered themselves with their felts and saddles. The poor animals, without clothing or food, were left exposed to the air.

In the morning the people were all well, and, having refreshed them with some warm tea, I set off in quest of those we had left behind, and my satisfaction may be better imagined than described when I saw two of the missing men on their feet endeavouring to reload the asses. The cook was lying on the ground, alive, and unharmed, though scarcely sensible. A short time longer would have been fatal; but, by dint of rubbing his limbs, and compelling him to make an effort, he was able, with the assistance of another man, to walk. They had not used the tents, it appeared, but they had covered themselves well with the sheep-skins, and had thus been able to weather out the night. Before mid-day the whole party was assembled at De-mo-chu, as the foot of the pass was called. I then rode on to look after the

sheep and their conductors; and found that they had stopped on a plain about two miles ahead, much lower and warmer than where we had halted, and near the small lake of Las Marma*. This lake, about three-fourths of a mile in circumference, collecting the waters of the mountains bounding the valley of De-mo-chu, gives rise to a small stream, which runs into the river of Durgukh near the village of that name. It was now nearly frozen over. In the evening my people feasted on the sheep I had ordered to be killed for them, and enjoyed themselves the more for the peril and fatigue they had undergone.

Whilst halting here for the day, we observed the large variety of the chakor, a species never before seen by Europeans. It differs in nothing essential except size from the common kind; but one of them, after being plucked and drawn, was found to weigh nearly five pounds. We saw them in coveys of thirty or forty on the edge of the snow, particularly in the morning and evening, and their flight was always accompanied

* Mr. Trebeck calls it the Tsol-tak, or High Lake.—Ed.

with a clamorous screaming and chattering, like that of the sea-gull. Having wrapped myself up in a lamb-skin vest I experienced this night no inconvenience from the cold, but in the morning I found my breath had frozen and glued the coverlet of the bed to the pillow. The thermometer was at 3° above zero *.

On the ensuing day we proceeded along the valley to the village of Durgukh; the path was intersected by a decayed wall, which it was said was erected as a defence—an unavailing one—against the Kalmaks. Durgu, Duryukh, or Durgukh, is a village of about forty houses, on either bank of a river, called by the same name. After receiving the Changla rivulet it runs westerly and joins the Shayuk at Lama-yul, on the road to Yarkand. Our journey, during the two next days, ascended its course along narrow valleys in which scarcely any trees were seen, and the lands fit for cultivation were of small extent. Beyond the village of Muglib the river descended in two small streams from the mountains on

* Mr. Moorcroft's Journal of this Excursion here terminates, and the following particulars are collected from that of Mr. Trebeck.—Ed.

either hand, which must be the seat of its source. We halted on the 6th, on the bank of a small lake called Tswar, which was frozen. The hills forming the valleys, or rather defiles, along which we were passing, were of much lower elevation than those we had left behind, and their skirts were bordered with grass. Near Muglib were some brood mares belonging to the Banka, which were at pasture here, and were in good condition.

After passing over a sandy valley we came to a gorge formed, in part, by limestone cliffs, and after clearing this, the lake of Pangkung came in view, with a river flowing into it from the north-east, above a mile distant. The road then came upon the edge of the latter, and we encamped close to the water, after having skirted it for between four and five miles. The hills approached us on our right; those on the other side of the lake, rising abruptly from it, were about two miles distant. Onwards the water extended to the horizon, contrasting agreeably with the bounded and tortuous torrents to which we had so long been accustomed. The water was perfectly clear, and, for the most part, still, and there

was no appearance of fish. The water was extremely salt. On the 8th we continued the same kind of route, having the lake upon our left and hills upon our right, which were about one thousand feet higher than the surface of the water. Snow lay down three-fourths of the slope, and some light falls occurred on our level. We halted at the village of Man, and remained there throughout the 9th to rest and refresh the cattle. The road of the 10th, and part of the 11th, continued along the shore of the lake. The lake then took a direction more to the north, and was visible for about ten miles in a horizontal direction; beyond that its course was not discernible. Where we quitted it, it was nearly three miles broad, and continued, apparently, of much the same breadth, contracted at intervals by projections of rock or sand. It is said that there is no path along its northern bank.

The village and river of Pangkung are in Ladakh, and was the route we traversed; but the country on the other side of the lake belongs to Rodokh. We were here met by reports, that an armed force had been stationed on the Gardokh frontier to oppose our

entrance into that country, and that a party from Rodokh were at Chushul to arrest our Kashmiri interpreter, Maksúd, and Lagrukh, a servant of the Banka, who had been sent with us as guide.

On the 12th we proceeded, over better roads than usual, to the village of Chushul. On our way we passed a hot-spring, which is reputed to possess medicinal properties; it was of the temperature of 96°, without taste or smell—no enemies made their appearance. From thence we advanced, on the 13th, along the valley of Chushul, over a surface mostly of sand and gravel, partially covered with grass and furze: in many places a quantity of soda was spread over the soil: the valley was watered by several small rivulets. We were now in the haunts of the Kiang, and encountered a drove of sixteen, besides individuals, but they were very wild, and kept too far aloof for our guns to reach them. At our halting-ground we were visited by the men who had been at Chushul on the part of the Zongspun of Rodokh; the principal was a Lama; his three attendants were shepherds: they were merry, good-humoured fellows, and

a little explanation made them our friends. Further to tranquillize the apprehensions of their governor, the Goba of Mirak, who happened to be at hand, undertook to transcribe a Tibetan letter which had been prepared by Mr. Moorcroft. The Goba was no great scribe, but he at length accomplished the task. The direction of Rodokh from this was east by south, and the road to it was by an opening in the valley, about a mile and a half from our camp.

For the three next days our route lay along the valley of Chushul, or rather a succession of valleys, separated by low hills of a similar character with that of Chushul. On the 16th we were overtaken by a letter from Mr. Guthrie, apprizing us that some persons had arrived at Lé from Yarkand, who had been sent by the Chinese government to ascertain if the representation given of us by Mir Izzet Ullah was correct. On the receipt of this advice, Mr. Moorcroft thought it advisable to return with all possible expedition to Lé, leaving me to prosecute alone the object of our excursion.

CHAPTER VII.

Pass of Tsaka La—Plain of Kag-jung, near the Sinh-kha-bah—Boundary of Ladakh—La Ganskiel pass—Messengers from Rodokh and Gardokh—Herds of Kiangs—Speed—Colour—Size—Return—Man-bar pass—Plain of Long Kong-ma—Cattle—Shepherds—Tank-tse—Merry-making—Pony-race—Durgukh—Chang-la pass—Severe Cold—Man frozen to death—Negotiations at Yarkand—Arrival of Messengers from Kashgar—Reply of the Khalun—Misrepresented by the Kashmirians—Other Letters prepared—Mir Izzet Ullah dismissed from Yarkand—First Dispatch sent by Abdul Latif—Proceedings at Lé—Disputes with Kulu and Balti—Seditious Placard.

After the departure of Mr. Moorcroft, I continued the day's route to the termination of the valley, and crossed by an easy ascent the pass of Tsaka La; its elevation, however, could not be less than fifteen thousand feet. On descending from it we came to the valley of Kongs-kok. Having loitered to watch some animals, which appeared like wild goats, I was overtaken by darkness, and whilst en-

deavouring to pick my way, was surprised by the tread and snorting of a considerable body of cattle; they fled, however, as I approached, and when I returned to the camp, I was told by the servants that a large herd, a hundred perhaps, of Kiangs had been seen by them.

Near our encampment, which was at a place called Ralmang, was a large house, the residence of a Lama, who was a kind of deputy to the Banka. He paid me a visit and was very civil. A rivulet on our right ran towards the Sinh-kha-bah, which was not above four miles in a horizontal distance to the south-east.

The hills on our left were low and rounded, and consisted apparently of clay-slate, although fragments of granite, quartz, and sandstone were strewn upon their sides; along their base grew a streak of furze and coarse grass, and patches of soda were visible. The path was over a gravel slope, which continued to the great river, being separated from it by a bed of sand bearing grass, but no wood. A strip of the same description extends along its left bank, and is bounded by steep hills.

On the 18th we encamped at Kag-jung, within one thousand five hundred paces of the

Sinh-kha-bah on our right. The tract along its borders consisted of a loose sand, with thin tufts of the Long-ma, or sand-grass, not sufficient to protect it from being raised in large clouds by the wind. Yet bare and desolate as the scene appeared, it was less so than other parts of Ladakh; and from December to February the flocks of Rup-shu are pastured in these plains, being sheltered at night by stone enclosures; these are chiefly on the other side of the river, and are further screened from the prevailing winds by the hills to their south.

On the 19th and 20th we continued to ascend the valley of the river, at various but inconsiderable distances, on our right. It was in general nearly sixty yards across, and appeared deep, but it was in most parts completely, or partly frozen over: the valley was about three miles broad. We halted near a stone-fold, called Chibra, and determined, after two or three days' rest, to return, as the boundary of Ladakh was pointed out to us as extending from the angle of a hill about five miles to the east, to the low pass of La Ganskiel, on the road to Gardokh, about fourteen miles distant to the southward.

The course of the river was visible for several miles, skirting the base of a line of hills rounded by the Gardokh road. The plain on which we were encamped was studded with small ponds or lakes, one of which was one thousand six hundred paces in circumference, and round the margin of each was a broad bed of soda. There were a great number of small pits, as if the soil had been removed for the extraction of the salt. A rivulet crossed the plain to the river, which was here divided by an island. In the winter the Gardokh traders, with their laden sheep, cross the Sinh-kha-bah on the ice. In the summer men and yaks ford it, either below Kag-jung, or near the Ganskiel pass.

On the morning of the 21st, we were visited by the Lama of Rodokh, who brought us a letter and a present of tea from his master. Although apparently well disposed, he was urgent with us to return, as, if snow should fall, the cold, he said, would be intense. To say the truth, we had reason to believe in his report, for though the day was beautifully clear, the north-west wind was benumbingly keen. I should think snow rarely falls in this plain; but storms of it were hovering on the

tops of the hills, and the snow on some of them seemed to have withstood the summer's heat.

The Rodokh Lama had scarcely departed, when a person from Gardokh arrived to learn our intended movements; he had come from Gun-la, which was not above three days' journey. We regaled him with tea, and sent him back with a present and a civil message to his chief.

We saw many large herds of the Kiang, and I made numerous attempts to bring one down, but with invariably bad success. Some were wounded, but not sufficiently to check their speed, and they quickly bounded up the rocks, where it was impossible to follow. They would afford excellent sport to four or five men well mounted, but a single individual has no chance. The Kiang allows his pursuer to approach no nearer than five or six hundred yards; he then trots off, turns, looks, and waits until you are almost within distance, when he is off again. If fired at he is frightened and scampers off altogether. The Chan-than people sometimes catch them by snares, sometimes shoot them. From all I have seen of the animal, I should pronounce

him to be neither a horse nor an ass. His shape is as much like that of the one as the other; but his cry is more like braying than neighing. The prevailing colour is a light reddish-chesnut; but the nose, the under-part of the lower-jaw and neck, the belly and legs, are white; the mane is dun and erect; the ears are moderately long; the tail bare and reaching a little below the hock; the height is about fourteen hands. The form, from the fore to the hind-leg and feet, to a level with the back, is more square than that of an ass, his back is less straight, and there is a dip behind the withers, and rounding of the crupper, which is more like the shape of the horse; his neck is also more erect and arched than that of the ass. He is, perhaps, more allied to the Quagha, but is without stripes, except a reported one along each side of the back to the tail. These were distinctly seen on a foal, but were not distinguished in the adults. Whilst engaged in the pursuit of the Kiang I came occasionally upon wild goats; they were rather higher than the sheep, long in leg, and spare in body, with a light head and neck, and curved horns of a moderate

size. They bounded off as I approached exactly like deer.

On the morning of the 23rd we commenced our return march to Lé. At Chibra we were joined by five men and a boy, servants of the Khalun, with one hundred and fifty-six sheep loads of shawl-wool, and three or four of coarse wool; each load being about thirty pounds, and the value of each pack eight or nine rupees. They had been eleven months absent from Lé.

On the 26th we halted at Ralmang again, and I promised a reward of eight rupees for a kiang, and four for a wild goat: a shikari was sent us by the Lama, whom I sent out accompanied by a servant: they were absent the whole day, and reported on their return that one animal had been wounded, so that he must die in a few hours, and might be brought in next morning. On the following morning, however, the shikari did not make his appearance, and although I went out to look for the kiang he said he had wounded, no traces of any such animal were discovered. The Lama paid me several visits; he had been a great traveller, having

been in China, and he was with the Lama at Kanre when Mr. Moorcroft visited the Lake of Mapang. In the house he inhabited, and another in its vicinity, were six Lamas, four other men, and fourteen women and children. On the 27th we recrossed the pass of Tsaka La; kiangs had been numerous all the way to the pass, but few were met with beyond it. Hares were in immense numbers, and partridges were frequent. At our encampment of the 28th the Gardokh messenger again appeared, bringing back the present I had sent the Garphan, who, he said, was highly incensed with him for having accepted it. On the 29th we reached Chushul, and from thence determined to proceed by the shorter road, that of Long Kong-ma to Lé. At Chushul a man brought me the head and feet, and part of the skin of a kiang, which he had killed some days before we first passed the village.

The road from Chushul to the foot of the Man-bar pass, occupied the whole of the 1st of December, and we crossed it on the following day; the ascent was not very difficult, though the elevation of the pass could not be

less than sixteen thousand five hundred feet. From this we descended to the plain of Long Kong-ma, which was thinly covered with snow; a rivulet along its south-west edge was frozen, but was skirted by grass, on which above two hundred yaks were pasturing, the property, as well as five hundred sheep, of the Goba of Chushul, who with twenty attendants had halted in the vicinity. From Long Kong-ma, he was going to Kag-jung, where he purposed remaining with his cattle for two months. The Gobas of Pangkung and Rup-shu repair thither at the same time with their flocks and herds. On the 3rd the road continued along a series of narrow valleys, stopping in that of Long Yukma. On the whole road we were accompanied or encountered by droves of sheep and yaks, pastured during the winter in these valleys, or about to move to the more productive plains of Kag-jung; the cattle and their attendants, and the black blanket tents of the latter, surrounded by wild and snow-tipped mountains, presented many interesting pictures of the life of the Tartar shepherds: notwithstanding the exposure and privation they undergo, the shep-

herds are a merry race, and their tents at night resounded with laughter and jollity.

At about two miles on the road, on our march of the 4th December, a large body of water gushing from the foot of the rock crossed the road, and formed a pond on the right of it, from whence it flowed to the river of Durgukh; a few miles beyond this the pastures of Chushul terminated, and the district of Tanktse commenced. We halted at the town of the same name.

Having left the sheep and other cattle to refresh themselves in the Long Yukma valley, I awaited their overtaking me at Tanktse. From hence to Tagar are two roads, one over the Chang-la, and the other by the Ski-la pass; the latter was the shorter but more laborious, and had not been travelled lately, so that its state was uncertain, and I determined, therefore, to prefer the more circuitous route. At Tanktse I obtained a lodging in one of the houses; it was not very commodious or cleanly, but my host and his family were good-humoured, and very hospitable. On the evening of the 5th my people joined me, but our provisions were exhausted, and

I applied, therefore, for assistance to the Karphun. I found him in the midst of revelry, in a court-yard converted into a room by spreading a blanket over it; he was seated on a cushion close to the wall, with the Lamas and head men of his own and the neighbouring villages on either hand of him; in front of him sat the other people in rows, whilst the women in their gala dresses stood on piles of earth round the low walls of the court. The mirth was vociferous, but the only ingredients of the feast were cakes of barley-meal, kneaded with water into bricks, of which a large heap stood before the Karphun, and chang, from an immense cauldron-shaped vessel: both were unsparingly distributed, and simple as was the fare, the enjoyment was more genuine than at many a much more sumptuous banquet in a civilized country. The assistance I required was immediately given, and I was pressed to join the revel; this, however, I civilly declined.

On the afternoon of the 6th at Tanktse, the speed of the ponies of the neighbourhood was tried on a small strip of land about four hundred yards long. The cavalcade was

headed by the nephew of the Karphun, and was preceded by a party of females gaily dressed, carrying jars of chang, which were placed at the goal, for which the horsemen started without any regularity. At Lé a similar race takes place at this time, with the addition of a mark to be shot at with the bow and arrow. This, however, is at so short a distance that it cannot well be missed. In the evening there was another feast of chang and barley-cakes: in the course of it the Karphun addressed a long speech to a man and woman seated near him, who were distinguished by a number of white crape and silk scarfs round their necks. It was said that they were the host and hostess; both of them wept violently before the conclusion of the speech.

On the 7th we set off and reached Durgukh without any material occurrence; on the next day we encamped at the pond of Tsaltak, which was now completely frozen; all around wore the aspect of winter, and the faint gleams of sunshine on the snowy pinnacles of the mountains, served only to light up their dreariness. On the morning of the

9th, at an early hour when we started, the thermometer was 6° below zero. The nose-rings of the yaks were frozen to the gristle, and the human breath turned to ice on the collars of the sheep-skin mantles; this lasted till some time after the sun had risen: it was noon before we had completed the ascent of the pass. Several of the people complained of pain in the head and chest, and one or two would have stopped in despair, if threats and entreaties had not been liberally administered: yet women and girls were traversing the path without fear or apparent fatigue. We were somewhat delayed by large flocks of sheep on their way to Durgukh, but at sunset we were safe again at Taghar, with exception of one man, who was unfortunately lost in the snow. This was a Hindu, a native of Tirhut, of the name of Sibu, who had remained behind with the sheep that carried our loads. An excellent Ladakh dog that was attending the flock had run away from it, and followed us to Taghar. Sibu missing the dog, imagined he had been left behind, and returned to Tank-tse to seek him. Finding that he was not there, he set off, contrary to the re-

monstrances of the Karphun, to cross the Chang-la by himself. He was seen by two of the Khalun's men on the ascent of the pass late in the afternoon, and was strongly advised to go no farther. He persisted, however, and the next traveller that went that way found his lifeless corpse. He had been benighted, had sat down on the road, and had been frozen to death. It was not until some days after our return to Lé that we learned his fate.

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* Upon receiving intelligence of the arrival of a mission from Yarkand at Lé, I immediately returned with all speed to the capital, leaving tents and baggage, and trusting to the hospitality of the peasantry for food and shelter at night. A few days brought me back, but before I returned the couriers had departed. It appeared that Mir Izzet Ullah, supported by the Mohammedans of Turkistan at Yarkand, had prevailed upon the authorities to consent to my visit, and a day was appointed for signing the passport; when the Kashmir merchants, trembling for the loss of their

* Mr. Moorcroft's journal is here resumed.—Ed.

monopoly of the shawl-wool trade through European interference, so wrought upon the jealous and timid disposition of the Chinese governor, that he thought it necessary to make a reference to the superior functionaries at Kashgar. From Kashgar a deputation was sent to Yarkand, and a council held, before which the Mir and one Nakaju, a Kashmirian, who was our chief opponent, were examined. The commissioners evinced gross ignorance, but upon the whole, a disposition to be just, and the chief objection was the want of a precedent; all merchants on the custom records being arranged in two classes, Indejanis and Kashmiris, to neither of which we belonged. The result was another reference to Kashgar, from which came an order that no passport should be granted. The Hakim of Yarkand, however, willing apparently to keep open a chance of our success, directed the chief Kashmiri merchants at Yarkand to write to their friends at Lé, to ascertain precise information concerning us, and these were the letters which had arrived, and been so precipitately replied to before my return.

Upon expressing a desire to see the letter which the Khalun had written in reply, and which had been intrusted to a Kashmiri merchant, a paper was produced, which was said to contain the purport, though not the precise terms of the letter, the original draft having been lost. As this was rather a suspicious circumstance, and induced me to conclude that the Kashmirians, presuming on the Khalun's unacquaintance with Persian, in which language the letter had been written, had misrepresented his expressions, I had a copy made of the document which was produced, and had it attested by the Khalun. I also assembled the Kashmiri merchants, and persuaded them, as they pretended to be my friends, to draw up and sign a true account of our proceedings, and a testimonial to our mercantile character, which might satisfy the Chinese governor of Yarkand of our intentions. These papers I purposed forwarding to Yarkand by a person in whom I could confide.

In the meantime Mir Izzet Ullah had been ordered to quit Yarkand: meeting, on his way, with the couriers from that city, and learning what had passed, he suspected some

foul play, and partly by persuasion, and partly by menace, succeeded in getting possession of their despatches, and inducing them to return with him to Lé. As soon as he arrived and apprized me of what had passed, I requested the Khalun to call a meeting of the Kashmiris, and in his presence, restoring to each man from whom a letter had gone, his epistle unopened, I called upon him to communicate its contents, if they were such as he dared avouch, leaving him to keep silence if the purport was at variance with his professions. There was a general silence, and each man seemed well pleased that his secret was not betrayed: this, however, availed them but little, for the Khalun unhesitatingly placed that which he had signed in my hand, and it soon appeared that it differed essentially not only in terms but in tenor from that which had been shown to me as the draft of it. Upon this I addressed the Kashmiris, and reproached them for their duplicity, their ingratitude, the attempts which I attributed to them against the life of Mr. Trebeck and myself, and their undoubted activity in frustrating my projects; and I announced to

them that instead of forbearing to interfere with their trade, as I had hitherto scrupulously done, I would enter into the market as a purchaser of wool and tea, which, as they well knew, would be ruinous to their interests, unless they came forward to remedy the evil they had caused. At the close of my address, which they admitted they fully understood, they requested leave to consult together for a day or two, when they would give a reply. The result was a letter from them conjointly, of a very different tenor, no doubt, from that of their first despatches, and a favourable letter from the Khalun, both of which were despatched by a servant of the latter, accompanied by Abdul Latif, as my agent. These measures were necessary for our vindication, but their success with the short-sighted and prejudiced Chinese was more than doubtful. * *

Along with Mir Izzet Ullah, the physician of Omar Khan, the ruler of Fergana, had come to Lé, and, having taken an interest in my surgical operations, wrote a letter to his master in my favour, requesting him to interfere on my behalf at Yarkand. Omar

Khan's support would have been much more effective than the letters from Ladakh, as he had on several occasions treated the Chinese with a spirit and firmness that compelled them to treat him with deference. A Turani merchant of Yarkand undertook to convey a letter and a small present from me to the king at Indejan, and I would have gone thither myself, but the road by Serik-kol was shut up by snow, and the only route open was that by Yarkand.

The severity of the winter now confined us to Lé, and very much to the house, in which my time and thoughts were chiefly engaged in administering medicines and performing surgical operations, especially for cataracts, of which the cases were numerous. Notwithstanding, however, I sedulously disclaimed all pretensions to a political character, I could not decline compliance with the urgent application of the court to interfere in a dispute between Ladakh and Kulu, as far as a friendly remonstrance with Sobha Ram, the Vazir of Kulu, was calculated to have any effect. Some traders of Kulu had been detected in an illicit trade in shawl-

wool on the frontier, and their goods had been seized: they had complained to the Vazir, and he had retaliated by sending an armed party into Ladakh, which had carried off a large number of horses and other cattle, and violated the sanctity of the temple by mutilating the images. The immediate consequence of this was the interruption of the trade, for the Lahoul carriers were afraid of reprisals if they ventured into Ladakh, and a considerable quantity of merchandise for Turkistan was detained on the frontier. The traders at Lé to whom it belonged, and the Chugzuts, conceiving a representation from me might remove the difficulty, by effecting a reconciliation, obtained a letter from me, but the bearers perished in the snow, and no adjustment was effected. The object of the Kulu Vazir, whatever might be pretended, was, no doubt, to raise means for paying the exactions of Ranjit Sinh.

Again, a person in the confidence of the Balti Raja, offered, on his part, to submit to my decision the matters in dispute between him and the government of Ladakh, but in this I declined to interfere, at least, without

written credentials, when I was willing to interpose my good offices, as a friend to both parties.

A circumstance of a more serious nature, and likely to have compromised me with the government, had they not possessed full confidence in me, was the appearance of a seditious placard, which was affixed by night at one of the gates of the city. This paper contrasted the beneficent and able rule of the late Raja with that of the present, charged the latter with many acts of tyranny, and warned him that, if he did not alter his conduct, the most respectable of his subjects, according to a resolution already adopted, would depose him, and request the principal European now at Lé to assume the government. Whether this was seriously intended, or was meant only to render me an object of suspicion, was doubtful. It completely failed if the latter was its object, for I heard nothing of it for several days after it had been taken down, and no change occurred in my familiar and confidential intercourse with the ministers.

The interruption of all communication for

some months accounted for the non-arrival of information from Yarkand in reply to our despatches, during the winter. When the passes were opened, however, they were still delayed, and it was evident that it would be of no avail to expect them much longer. Unwilling, however, to relinquish the hope of penetrating by this route until all prospect of it must positively be resigned, I protracted my residence at Lé into the summer of 1822. In the middle of that year two excursions were performed, one by myself to Dras, on the road to Kashmir, the other by my companion to Piti, the province bordering on Bisahar.

END OF VOLUME I.

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